

The direct and indirect influences of job demands, engagement and drive on
work-life conflict and well-being

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Henrieta Hamilton Skurak

Abstract

In healthy organisations, employee well-being is coexistent with efficient and effective work organisations. Improving employee wellbeing is therefore of significant importance for organisational performance. This study draws on the Job Demands-Resources model which suggests that the balance between job demands and resources impacts on individual well-being. Using an on-line survey (N=162) this study investigated the direct and indirect relationships between job demands, engagement and drive on work-life conflict and well-being. In general, the findings of this study are consistent with the JD-R model; job demands predicted work-life conflict, while the strongest predictor of well-being was the job resource of work engagement. Further, once indirect relationships were considered, it was found that engagement, a construct generally associated with positive outcomes, and overtime hours lead to psychological detachment issues for employees; consequently contributing to their work-life conflict. In addition, work-life conflict was found to mediate the relationships between the job demands of external work pressures and drive and wellbeing, suggesting that being pressured to put one's work before their other interests and having an excessive work-drive contribute to reduced employee well-being. The unique contribution of this study lies in the assertion that while engagement has positive influence on employee and organisational outcomes, it is important that organisations and individuals ensure that work does not cause a negative spillover into employees' private life, enabling them to recover after work and be ready for the next day's challenges. The findings are discussed in terms of their theoretical and practical implications.

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Introduction

Healthy organisations are those that manage to integrate employees' well-being with the financial goals of the company (Sauter, Lim, & Murphy, 1996). Healthy workplaces, according to Grawitch, Gottschalk, and Munz (2006) recognise that there is a need to look past the bottom line and focus on people, the most important asset of an organisation. This shift in attention is not surprising, especially if we consider the amount of time people spend at work. Therefore, it is essential to consider research suggesting that work demands and stressors may lead to health impairments, something that organisations are becoming increasingly concerned about (Halbesleben & Buckley, 2004). The focus on health is further accentuated by the heightened emphasis of individuals on achieving a satisfactory work-life balance (Brannen, Lewis, & Nilsen, 2002). In particular, work-life interference can be viewed as a well-being indicator. This assertion is supported in a New Zealand study by Macky and Boxall (2008) who used work-life imbalance as one of the variables, along with job-induced stress, fatigue and job satisfaction, that made-up the outcome variable of well-being. Therefore, in considering the potential negative consequences of work interference with family, such as burnout, depression and life and job dissatisfaction, it is not surprising that research is driven by the need to understand the antecedents and outcomes that lead to work-life conflict (WLC) and/or negative health implications (Frone, Russell, & Cooper, 1992; Ganster & Rosen, 2013; Greenhaus & Beutell, 1985; O'Driscoll, Ilgen, & Hildreth, 1992). Thus, this study investigates how different job demands, impact, directly or indirectly, employee health and work-life balance.

1 Theoretical framework

1.1 The Job-Demands and Resources theory

The use of the Job-Demands and Resources Model (JD-R), an occupational job-stress model as the overarching framework for this study, is appropriate as it allows flexibility in the investigation of different job demands and resources and their relationship with both positive and negative aspects of employee well-being and WLC.

The JD-R model, introduced by Bakker, Demerouti, and Schaufeli (2003), is one of the most recent theoretical models in the area of well-being. This model considers a wide set

of stimulating, in addition to health impairing, job characteristics emphasised in earlier models. This model suggests that employees' well-being is the upshot of the relationship between job characteristics that can be divided into job resources and job demands (Bakker & Demerouti, 2007; Schaufeli & Taris, 2014). On one hand, the *health impairment* effect of job demands, such as long hours, work pressures and emotional demands, may exhaust employees and lead to health issues. On the other hand, the *motivational effect* of job resources such as autonomy, supervisory support and role clarity, may lead to job engagement, thus increasing one's willingness to dedicate effort to a task and contribute to the achievement of work goals, and consequently to better performance and higher job satisfaction (Bakker et al., 2003; Bakker & Demerouti, 2007). Furthermore, the model also suggests that job resources can buffer the effect of job demands on strain (Bakker, Demerouti, & Euwema, 2005), in particular when job demands are high. There have been earlier models that offered explanations as to how different job characteristics may differently impact on employee well-being, such as the effort-reward imbalance (ERI) (Siegrist, 1996) or the demand-control model (DCM) (Karasek, 1979). Nevertheless, the JD-R model is thought to be an all-encompassing model that offers much needed flexibility in the consideration of demands and resources and it is highly applicable to various occupational settings (Bakker & Demerouti, 2007). Therefore, while job-related resources, such as supervisory support, supervisory recognition, and rewards, may foster extra effort leading to engagement, and consequently improved well-being (Bakker & Schaufeli, 2004; Schaufeli & Bakker, 2004), the lack of these resources and/or the exposure to long-term job demands, such as work pressures, heavy work-load, long-working hours and WLC can lead to burnout and other health-related issues (Melamed, Shirom, Toker, Berliner, & Shapira, 2006). However, it is important to distinguish between different job demands, as they are not equal in the extent to which they negatively impact well-being and other outcomes.

1.1.1 Differentiating between hindrance/challenge demands within the JD-R model

Several studies have found that certain job demands are associated with positive outcomes, contrary to the basic tenet of the original JD-R model (Mauno, Kinnunen, & Ruokolainen, 2007); particular demands, such as work overload and cognitive demands, were linked to such positive outcomes as engagement, contributing to the questioning of the homogeneity of job demands in the model (Crawford, LePine, & Rich, 2010; Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). As a result, job demands were

divided into two types, namely job challenges that, while requiring energy, can be stimulating (e.g., work-load, overtime hours and drive), and job hindrances that reduce employee effectiveness (e.g., work pressures) (Van den Broeck et al., 2010). This proposition is supported by research suggesting that job hindrances have a negative relationship with job satisfaction and performance, whereas job challenges, such as workload, are positively related with these outcomes (Crawford et al., 2010; Van den Broeck et al., 2010; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Thus, while job hindrances contribute to negative individual and organisational outcomes, job challenges can lead to more desirable outcomes and through such moderators as job control or supervisory support, they may lead to higher engagement, buffering the undesirable effects of high job demands on strain (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hakanen, Bakker, & Demerouti, 2005). The findings outlined can be explained in the light of the Conservation of Resources Approach (COR) and the Effort-Recovery (ER) model (Meijman, Mulder, Drenth, & Thierry, 1998).

1.2 The Effort-Recovery and the Conservation of Resources theory

The Effort-Recovery (ER) model suggests that recovery is necessary for any individual that has experienced a stressful period in order to return to the pre-stress levels. This model holds that extra effort at work can lead to fatigue and physiological activation, which can be restored under normal conditions once the exposure is discontinued and the individual is detached from the experience. Thus, detachment from work may act as a resource that can buffer negative job demands, such as emotional demands. This theory is closely linked to Hobfoll's (1989) Conservation of Resources (COR) theory, which suggests that if one's resources are threatened or depleted, the person will seek to interrupt the loss spiral and activate the gain spiral by, for example, taking time away from work.

The motivational effect of job resources on engagement is particularly salient when demands are high and the resource loss is more apparent. For example, in an event of high emotional demand, the importance of social or supervisory support becomes accentuated (Hobfoll, 2002). If the replenishment of depleted resources is unsuccessful, it may lead to psychological and physical costs, such as fatigue, irritability and burnout (Maslach & Jackson, 1981; Schaufeli & Taris, 2014; Sonnentag, Mojza, Binnewies, & Scholl, 2008).

2 The Present Study

Considering the importance of well-being and work-life conflict for employees and employers in today's organisations, this study tested a theoretically developed model of relationships between job demands (i.e., overtime hours, workload and external work-pressures), drive and engagement as antecedents of WLC and employee well-being, underpinned by the Job Demands and Resources (JD-R), Conservation of Resources (COR) and the Effort-Recovery model (Meijman et al., 1998). While drive and engagement are not job demands per se, their inclusion is justified on the basis that they both share heavy work investment as a characteristics, thus driven and engaged employees often work long hours and deal with heavy workloads. These characteristics make these constructs either a hindrance or a challenge, depending on the outcome.

Firstly, I will examine the degree to which the above mentioned antecedents explain the variance in WLC and employee well-being. I will discuss this in more depth later. In addition, as it can be reasonably proposed that some of these relationships are more complex than previously thought, the potential mediating effects of psychological detachment from work will be tested in the context of WLC as an outcome variable, while the mediating capacity of WLC will be examined as a link between the antecedents of this study and subjective well-being (Figure 1).

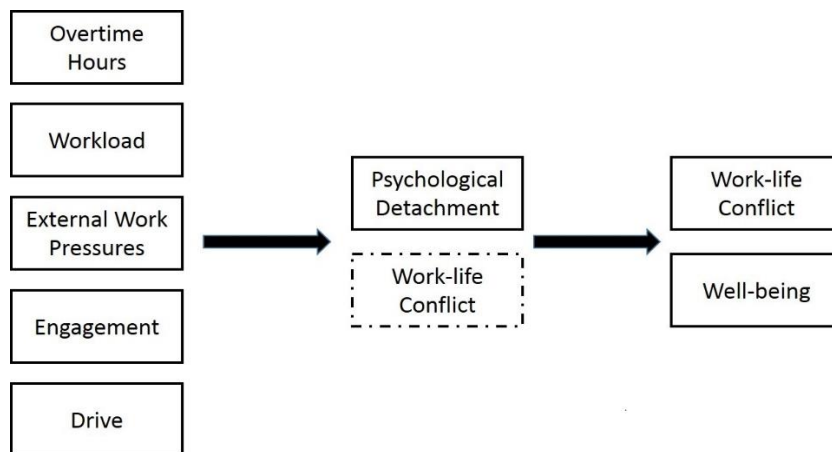


Figure 1. Conceptual Model depicting the relationships investigated in this study. The model displays the five independent variables whose relationships to the outcome variables are examined through the use of mediators.

One of the unique contributions of this research lies in positioning engagement as a predictor, rather than an outcome (Crawford et al., 2010; Mauno et al., 2007), a mediator (Saks, 2006) or moderator (Britt, Castro, & Adler, 2005) variable. In this position it will be investigated whether engaged employees find psychological detachment from work difficult, and whether in turn this contributes to higher levels of WLC for the individual. Engagement is a construct that research most commonly refers to as a desirable state that leads to higher performance, lower turnover and better health. However, it may be possible that engagement has a more complex, indirect relationship with WLC leading to undesirable organisational and individual outcomes than previously thought.

3 Literature Review

3.1 Overtime work

Time and strain-related demands are predictors of WLC (Frone et al., 1992; Greenhaus & Beutell, 1985; Skinner & Pocock, 2008). Even though British economist, Maynard Keynes, in 1930 anticipated that by 2030 we would only need to work a 15-hour week because technology will take on much of the work we do (Keynes, 1933), several authors suggest that people in the industrialised world work harder and longer hours than ever before (Burchell, Ladipo, & Wilkinson, 2005; Lewis & Smithson, 2006; Porter, 1996). The link between overtime hours worked and WLC can be explained by the notion that by working longer, the time spent on non-work related activities for the individual becomes limited. This reduction in time for other pursuits has been shown to be associated with WLC and/or health issues (Frone, Yardley, & Markel, 1997; Kinnunen, Feldt, Geurts, & Pulkkinen, 2006; Major, Klein, & Ehrhart, 2002; O'Driscoll et al., 1992). Despite numerous findings supporting the relationship between time spent at work and WLC, Wallace (1997) argues that highly engaged employees who are motivated by work, often white-collar workers, may voluntarily choose to work extra hours because of the enjoyment their job provides, and do not view this behaviour as invading other spheres of their lives. This relationship, however, is not necessarily direct. For example, research by Major et al. (2002) shows several antecedents of overtime, including work-load, organisational expectations, and rewards, which through overtime hours contributed to WLC and, subsequently, to well-being. Similarly, O'Driscoll et al. (1992) found that WLC mediated the relationship between time spent at work and life satisfaction, leading to psychological strain. Nevertheless, the findings appear to be more

conclusive for the relationship between long hours and WLC than for the relationship between long hours and well-being.

Research findings ascertaining the relationship between long work hours and general health are conflicting. For example, a meta-analytical study conducted by Van der Hulst (2003) found that of the six reviewed research articles only two showed an association between these two variables. In addition, one of the two studies mentioned above found a significant relationship only for employees that worked more than 45 hours per week. Furthermore, Raediker, Janßen, Schomann, and Nachreiner (2006) argue that the relationship between hours worked and well-being is exponential, rather than linear: while the effects are not substantial within a few extra hours, they incrementally increase as the hours increase. However, Schaufeli, Taris, and Van Rhenen (2008), in their study that investigated the empirical distinction between burnout, engagement and workaholism, found that excess working time was not associated with burnout, while it was positively related to workaholism and engagement. Kinnunen et al. (2006), similarly to Schaufeli et al. (2008), reported no significant relationship between working hours and job exhaustion or psychological distress in a sample of Finnish employees. To add to the inconclusive findings on the effects of hours worked on well-being, Meier and Stutzer (2008) argue that this relationship is inverted. The authors found that employees' life satisfaction and well-being, was positively related to hours worked but only up to a certain point, beyond which the effect of hours on well-being became detrimental. In addition, working overtime hours may have different outcomes for different individuals.

The relationship between hours and well-being, also studied by Burke and Fiksenbaum (2009), found that while both addictive and passionate workers are heavy work investors and work long hours, addictive workers report lower well-being than the later, suggesting that the degree of control over one's heavy work investment matters most in determining the well-being outcome for these employees. In a similar vein, Snir and Harpaz (2012) point out other factors affecting the outcomes of overtime workers, such as being situational or dispositional workers that invest in work heavily. Situational factors that affect the time invested in work may include: extrinsic rewards, employers' demands, occupying a managerial or professional position, or organisational culture. In the same vein, because employees may get other benefits from working extra hours, such as career advancement, job security or financial rewards, they may view their effort and time as being sufficiently

compensated for, and not perceive it as an impediment that negatively affects their well-being. This notion is supported by the work-leisure trade-off theory that suggests that when workers are paid more, their opportunity cost of leisure increases, thus they voluntarily work even more to find a new equilibrium (Killingsworth, 1983). Therefore, it can be said that employee perception of longer working hours, and consequently its outcomes, is inconclusive as it may depend, amongst others, on the reasons for the actual demand for overtime work. While intuitively one might suggest that overtime hours will lead to health problems, based on this review I will not endeavour to predict this relationship and only put forward expectations for the relationship between overtime hours and WLC.

Hypothesis 1 *Overtime hours are expected to be a significant predictor of employee WLC, thus higher overtime hours are expected to increase WLC (H1).*

3.2 Work Overload

Work overload has been identified as the strongest, and at the same time the most consistent predictor of WLC (Geurts & Demerouti, 2003; Ilies et al., 2007; Skinner & Pocock, 2008). Furthermore, it is likely that work overload will have a dual-effect in the form of influencing the hours employees work and contributing to health-related issues (Frone et al., 1992; Frone et al., 1997). Even though Crawford et al. (2010) and Van den Broeck et al. (2010) identified work overload as a job challenge leading to positive outcomes such as engagement, its role in relation to WLC and well-being is more likely to be negative, operating as a hindrance rather than a challenge (Ilies et al., 2007; Skinner & Pocock, 2008). However, the appraisal of demands is likely to be reflected by the definition of that demand, in this case workload. For example, if high workload is perceived as higher than usual but not excessive workload, it can be viewed as a job challenge. On the other hand, high workload can be perceived as an amount of work that exceeds what one can accomplish in the given time-frame, in which case it can be interpreted as a hindrance. A study by Skinner and Pocock (2008) clearly identified workload as the most salient predictor of WLC amongst the job demands tested in their model, potentially reflecting the dual-effect of this variable, affecting both time and emotional/psychological strain (Frone et al., 1997). Therefore, while high workload might be stimulating, work overload may cause stress, exhaustion and WLC. As in this study I will measure work overload as the amount of work that is “too much for one person to do”, it will be hypothesised that

Hypothesis 2 *A higher workload is expected to increase employees' WLC (H2a) and reduce employees' well-being (H2b).*

3.3 External Work-pressures

While there is little known research about the *institutional drivers/pressures* of excessive work, several suggestions have been proposed. According to Feldman (2002), working long hours is reinforced when telecommuting is an option or when long hours are seen as a precondition for career advancement or positive performance evaluations. This notion is further supported by Simpson (1998), who argues that organisational downsizing, a frequent feature of contemporary economic landscapes, often results in increased workload, leading to longer working hours. Thus, employees show visible commitment by working longer, which leads to a type of presenteeism and an organisational culture that supports this behaviour. Presenteeism implies that employees may stay at work even though one is not necessarily spending the time productively (Simpson, 1998). Thompson, Beauvais, and Lyness (1999) developed and measured work-family culture by surveying managers and professionals and examining their work-family support utilisation and WLC. The researchers found that a supportive and valued work-family integration climate was negatively associated with, and explained, substantial variance in WLC. When employees felt that devoting time to family matters and activities did not have negative consequences for their career, they perceived less work-to-family life interference. Perlow (1995), who investigated barriers to work-family balance in a qualitative study, concluded that linking employees' presence at work directly to their productivity is problematic and it contributes to work-family conflict by making employees choose between family requirements and career demands. Even though these employees may be highly productive when they are at their work, their work-life balance might be sacrificed for work presence. These suggestions are consistent with those of Macky and Boxall (2008) who, in studying High Performing Work Systems (HPWS), concluded that if organisational success is achieved through greater employee involvement, there are benefits to be had for both, the organisation and the individual, in the form of higher job satisfaction and lower stress and fatigue. However, the same study established that if higher performance is pursued through work intensification (i.e., perceived work-overload and longer working hours coupled with managerial pressure to the same effect), this results in job dissatisfaction, stress, exhaustion and greater WLC. In addition, Major et al. (2002) found that organisational expectations led to increased work time, which impacted upon employees'

work interference with family, leading to psychological distress. Thus, organisational pressures showed an indirect relationship with this well-being indicator. These findings are consistent with the suggestion of Roberts (2007) who argues that a long-hours-culture makes employees feel that if they do not arrive early and leave late, they are not committed and loyal. These external pressures can be experienced irrespective of the actual hours worked and are likely to contribute to WLC but not necessarily impact upon well-being directly. Thus, based on previous research, it is hypothesised that

Hypothesis 3 *The perception of external work pressures are expected to increase employees' WLC (H3a) and reduce employees' well-being (H3b).*

Furthermore, Fry and Cohen (2009) go as far as to argue that organisational practices and values that reward workaholism, which can be manifested through excessive work, can contribute towards creating an extended work hours' culture which, if pushed beyond an optimum level, will accelerate organisational decline.

3.4 Drive

Long hours and work-overload are some of the defining features of workaholism and these two terms are often used interchangeably (Burke, 2000; Porter, 1996). However, workaholism as a concept is problematic because of the inconclusive perceptions and definitions of the construct itself, which is viewed as "good", "bad" or both. Oates (1968), who was the first to coin the term workaholism, viewed the construct in a negative light while Machlowitz emphasised the positive outcomes associated with workaholism, such as job and life satisfaction and high productivity (as cited in Burke, Richardsen, & Mortinussen, 2004). Nevertheless, since then there has been research indicating the negative effects of this construct, including depression and mental health problems (Frone, 2000; Frone et al., 1992), job exhaustion and burnout (Allen, Herst, Bruck, & Sutton, 2000; Kinnunen et al., 2006) and low job satisfaction (Bacharach, Bamberger, & Conley, 1991). Furthermore, several other authors have identified different dimensions of the construct (Scott, Moore, & Miceli, 1997; Spence & Robbins, 1992), such as the dimensional approach of Spence and Robbins (1992) who differentiated between *workaholics* with high drive but low work enjoyment, *work enthusiasts* who are high on enjoyment but low on drive and *enthusiastic workaholics* that score high on both. As expected, the outcomes differ between these three categories. *Work*

enthusiasts - those who choose to work long hours because they enjoy it - are not likely to have the same negative well-being consequences as workaholics who feel driven or addicted to work and do not enjoy it. The potential relationship between workaholism and WLC can be found not only in the assertion that they devote considerably more time to work than do relaxed, uninvolved workers (Spence & Robbins, 1992) but also in the suggestion that one of the defining elements, namely long hours, could link workaholism to WLC, and consequently well-being as was found by Major et al. (2002). The above conclusions are further strengthened by Russo and Waters (2006), who found that work-family conflict differed between workaholics and work enthusiasts, where the former experienced greater WLC than the latter, thus had a more relaxed attitude to work and as a consequence, the lack of job involvement resulted in lower WLC.

Because of the complexity and inconsistency regarding the nature of the construct, Aziz, Uhrich, Wuensch, and Swords (2013) and Porter (1996) suggest the return to the origin of the concept. The original view argues that workaholism corresponds to alcoholism (Oates, 1968) and is an Obsessive-Compulsive Personality Disorder (OCPD), an addiction. This addiction results in the neglect of the personal spheres of one's life and leads to negative health consequences. By viewing workaholism as an addiction, we eliminate subsuming "good" and "bad" workaholism under one phenomenon. For the purpose of the present study, workaholism will be defined as an addiction characterised by an intense work drive that leads to neglect of other interests and negative consequences (Aziz et al., 2013; Robinson, 2001; Spence & Robbins, 1992). This study's original aim was to focus on the drive dimension of the Workaholism scale; however, as most studies assessed workaholism with the inclusion of drive, rather than drive separately, there was no alternative but to discuss the literature pertaining to drive in this context.

The findings of several studies suggest that workaholics were not found to have significantly worse health impairment outcomes than their non-workaholic counterparts, such as *work enthusiasts*. Amongst these studies is a New Zealand study by McMillan and O'Driscoll (2004), which suggests that workaholics function relatively well, do not suffer from extreme health problems and their mental and physical health is not significantly different to non-workaholics. This finding is also consistent with that of Burke (2000) where the high enjoyment component seemed to buffer negative health concerns. It is worthwhile noting, however, that McMillan and O'Driscoll, as well as Burke, used the modified

Workaholism Battery (Spence & Robbins, 1992) that included enjoyment as a dimension of workaholism, which is inconsistent with the definition of workaholism used in this study, that is, an uncontrollable urge similar to addiction. For example, the Spence and Robins' workaholism dimension of *work enthusiast*, that Buelens and Poelmans (2004) refer to as *happy hard workers*, agrees with the recently introduced concept of work engagement by Schaufeli, Taris, and Bakker (2006). To reduce this confusion, this study will focus on the drive dimension of workaholism, which was described by Aziz et al. (2013) as the key facet of this construct because it is most closely related to poor physical and psychological health. Therefore, it is hypothesised that

Hypothesis 4 *Drive is expected to increase employees' WLC (H4a) and reduce employees' well-being (H4b).*

While employees that are driven to work are not necessarily highly engaged and do not work because of work-related pressures, they, however, may exhibit some of the behaviours of highly engaged employees, such as taking on large workloads and working longer hours.

3.5 Employee Engagement

Bakker & Schaufeli (2004, p. 295), define engagement as a “positive, fulfilling, work-related psychological state of mind” that is characterized by vigour, dedication, and absorption. This definition is similar to that of Rothbard (2001) who suggested two motivational core concepts of job engagement – role attention and role absorption – which are associated with high levels of activation or energy (Macey & Schneider, 2008). Mauno et al. (2007) describe one of the characteristic elements of engagement - absorption - as being similar to the concept of flow introduced by Csikszentmihalyi (1990), which explains absorption as a high level of involvement in a particular pursuit such that nothing else seems to matter. Absorption, furthermore, has been referred to as a full immersion in and concentration on work-related tasks, where time passes without notice and where it can be difficult to detach oneself from work (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002). The attributes of engaged employees in academic literature have been mostly associated with desirable outcomes, such as job satisfaction, organisational commitment, intention to stay, and well-being, which in turn can positively impact organisational success (Bakker & Demerouti, 2007; Saks, 2006). For example, Schaufeli et al. (2008) found that work

engagement was positively associated with job satisfaction and organisational commitment. However, he also found that work engagement was negatively associated with burnout and ill-health. These findings were supported by Hakanen, Bakker, and Schaufeli (2006) who showed that such resources as supervisory support, innovative climate and information were positively related to engagement which, in turn, negatively impacted burnout. Further, Demerouti, Bakker, de Jonge, Janssen, and Schaufeli (2001) found that increase in vigour was accompanied by a decrease in employee psychosomatic health complaints. The above studies clearly identify engagement as a construct that is associated with well-being. This notion is supported by Rothmann (2008), who identified engagement as one of the dimensions of a four-factorial model of work-related well-being, along with burnout, occupational stress and job satisfaction. Thus, engagement may lead to overtime work as a choice to accomplish a task, which brings about enjoyment and satisfaction, positively affecting one's life, consequently enhancing one's well-being (Porter, 1996). However, high absorption and dedication may still lead to behaviour that impinges on employees' after work activities, contributing to WLC.

3.5.1 Is more engagement always good?

Bakker, Albrecht, and Leiter (2011) propose a possible undesirable side to engagement and point to a probable "overengagement" by employees, a sentiment supported by Halbesleben (2011). This undesirable side may come about when engaged employees take work home, which consequently interferes with their family life (Beckers et al., 2004). This behaviour may undermine their ability to recover from work-related demands and lead to health issues (Geurts, Kompier, Roxburgh, & Houtman, 2003). In addition, Bakker et al. (2011) suggest that high engagement can lead to workaholism. Thus, employees that are highly engaged and invest heavily in work even though they do not like working overtime, turn the positive affect of engagement into negative affect and strain. Engagement is differentiated from workaholism in its underlying motivation for excessive work. Where a workaholic works long hours for the action itself, without pressure but also without enjoyment, an engaged employee does so because of choice and enjoyment (Porter, 1996). Nevertheless, if engagement leads to depletion of resources, or just running out of time, it may have negative consequences on individuals' work-life balance. Thus, there might be a fine line between healthy engagement and detrimental overengagement. This proposition is supported by the findings of Beckers et al. (2004), specifically that there is a positive

relationship between employee engagement, working overtime and taking work home. Schaufeli et al. (2006) suggest that overwork is a particular feature of excessive workers in general and that the high level of dedication in the form of overengagement may also lead to negative outcomes, such as distress and exhaustion (Siegrist, 1996). Overengagement is further supported by Buelens and Poelmans (2004), who augment this thought by adding that work enthusiasts are often described as engaged employees, work extremely long hours, manage high work-load, are satisfied with their work and do not want to leave work (Saks, 2006). According to Britt et al. (2005) and Sonnentag et al. (2008), highly engaged employees' well-being is negatively affected by stressors encountered on the job. Thus, while engagement cannot be described as a job demand, it may have elements that deem it a job stressor under certain circumstances, such as in emotionally demanding jobs. In addition, Demerouti et al. (2001) in a study attempting to predict employee' job demands and control through health impairments and active learning (engagement and commitment) found that active jobs that involve high demand and high control, not only have a motivational component but also contribute to increased strain. If we accept that absorption involves a high level of involvement in a particular pursuit so that nothing else seems to matter, that the individual is happy to pursue this activity, purely for the sake of it (Csikszentmihalyi, 1991) and that engagement involves the active use of emotions (Saks, 2006), whether positive or negative, then this behaviour might lead to detrimental outcomes to the individual and organisation. However, this suggestion was not supported by the limited research in this area, such as the study by Rothbard (2001).

Rothbard (2001) found that increased attention to, but not absorption in work, led to negative emotional responses to work, at least for women, and was found to affect their engagement outside of work. This proposition supports the depletion argument of job demands. While, Rothbard, Galinsky, and Medvec (2000) argue that emotions from work engagement can spill over and impact upon engagement outside of work, without gender differences in the outcome, there are limited empirical findings to support this assertion. In summary, research on the impact of engagement on well-being is mixed as to the outcome, but on balance it seems to point more towards positive rather than negative well-being consequences. However, suggestions about the contribution of engagement to WLC are mainly speculative rather than empirical (Saks, 2006; Siegrist, 1996), which leads me to hypothesis that

Hypothesis 5 Engagement is not expected to affect employees' WLC (H5a) but higher engagement is expected to increase employees' well-being (H5b).

In addition, the present study will build on the research by Halbesleben, Harvey, and Bolino (2009), where the authors in investigating the relationship between engagement and WLC found that engagement was associated with higher levels of work-family interference and this relationship was mediated by organisational citizenship behaviour. For this reason, it is tenable that this relationship is perhaps a more complex one than first thought and may involve other variables that fulfil a mediating role in these associations, such as psychological detachment.

3.6 Psychological Detachment

Research on the relationship between job demands, psychological detachment and WLC is limited at present. Nevertheless, some recent studies support the proposition that the lack of physical and/or psychological detachment from work when not at work leads to health related issues (Kinnunen, Feldt, Siltalo, & Sonnentag, 2011; Richardson & Thompson, 2012). For example, Richardson and Thompson (2012) asserted that the relationship between organisational norms (i.e., the expectation that employees stay connected to work even when not at work), and psychological well-being was mediated by employees' inability to detach from work. In addition, Kinnunen et al. (2011) in a recent study found that time pressures and hours worked led to detachment issues from work, which consequently resulted in employee fatigue. This interest is further motivated by such suggestions that highly engaged workers continue to think about work, or even actively continue working once at home, potentially contributing to their work-family conflict (Sonnentag et al., 2008). In addition, in this study, the positive relationship between detachment and a positive affective state of workers at the end of the week was moderated by high engagement, while for low engagement this relationship was non-significant (Sonnentag et al., 2008). This finding clearly points to the importance of detachment from work when not at work, in particular for highly engaged employees. In conclusion, Kinnunen et al. and Sonnentag et al., suggested that it was essential to consider recovery as mediator in the JD-R model in future research. The above findings prompted the desire to investigate the mediating role of psychological detachment

between the job demands and the dispositional constructs of drive and engagement and WLC in this study.

Psychological detachment is a term coined by Etzion, Eden, and Lapidot (1998) and refers to mentally being away from a work situation when not at work to allow for recovery from stresses at work in non-work times. Sonnentag et al. (2008) describes the activities that may hinder this recovery as those involving such after-work activities as answering work-related call, e-mail or actively doing work tasks. Employees need to recover adequately and sufficiently from the demands of high engagement at work, which require a sustained state of activation that may gradually lead to exhaustion, both physical and mental. Furthermore, overengagement may lead to the depletion of one's resources which, according to the COR theory, employees will try to interrupt and restore in order to avoid stress and burnout (Hobfoll, 1989). Psychological detachment enables the replenishment of one's resources that have depleted as a result of work stress. Conversely, when employees are not detached they are unable to restore their resources which can lead to negative outcomes, such as low levels of well-being (Ward & Steptoe-Warren, 2014). In the case of engagement that is expected to be a relatively stable state and defined by high absorption and dedication, this detachment may not be easily achieved. Thus, state engagement that refers to empowerment, satisfaction, involvement and commitment (Macey & Schneider, 2008) may have both enriching as well as depleting properties (Rothbard, 2001), thus fulfilling a hindrance or a challenge role in the JD-R model.

On the one hand, it can be argued that high engagement and the lack of detachment is beneficial for employees as they carry through the positive effects of their work experience into their non-work life and contribute to better work performance (Fritz & Sonnentag, 2005). On the other hand, it can be equally proposed that highly absorbed employees get not only absorbed in enjoyable and positive tasks but also in stressful situations, which may have an undesirable flow-on-effect and distract from enjoying outside-of-work activities (Rothbard, 2001). Furthermore, while an optimal level of the emotional demand element of engagement may contribute to better performance while allowing for psychological detachment, high emotional demand/engagement may be a barrier to it, a notion supported by Warr's Vitamin model (as cited in Demerouti et al., 2001). This model proposes that neither too few nor too many job demands are good for employees. Furthermore, the enrichment/depletion dichotomy of engagement investigated by Halbesleben, Harvey and Bolino (2009) in their

study, examined whether the relationship between engagement and WLC was mediated by organisational citizenship behaviour. The findings support the notion that highly engaged employees will experience time-based WLC as a result of the depletion of resources these employees expend while engaging in extra role activities. In addition, engaged employees may experience strain-based work-family conflict where ruminating over work issues prevent them from recharging their energy and fulfil their non-work roles. In addition, while overtime hours, work-load, external pressures and drive do not necessarily suggest emotional job demands and involvement with one's job, it may lead to a reduction of time for recovery, a notion supported by Sonnentag and Bayer (2005).

Sonnentag and Bayer (2005) found that with the increase of workload and chronic but not day specific time pressure, and overtime work, employees' ability to unwind and psychologically detach was reduced, leading to health related issues. However, Sonnentag and Bayer speculated that the health impairment elements of low detachment may not be relevant for highly engaged and involved individuals as they derive enjoyment from their work, positively affecting their well-being. Nevertheless, it doesn't preclude the possibility that low detachment will impair work-life balance for the same employees, as the preoccupation of their mind with work related issues may prevent them from the full immersion in non-work/family activities, thus recovery. However, as mentioned earlier, the position of detachment in the JD-R model between job demands and WLC is limited, a shortcoming this study attempts to remedy. In light of these findings, it will be hypothesised, that

Hypothesis 6 *Psychological detachment is expected to mediate the relationship between the predictors and WLC (H6).*

While the above model investigated WLC as an outcome variable, its role in the relationship between job characteristics and several psychological outcomes is not clear cut and several studies have considered its role as a mediator (Frone et al., 1992; Janssen, Peeters, Jonge, Houkes, & Tummers, 2004), a position I will adopt in this study.

3.7 Work-life conflict

According to Greenhaus and Beutell (1985), WLC can be defined as role conflict where the experiences of pressures from work-to-family, and vice versa, are mutually incompatible. This view is reinforced by the role stress theory which argues that because the amount of resources available to employees are fixed the fulfilment of multiple roles can lead to the depletion of resources, and consequently, to strain and stress (Carlson, Kacmar, & Williams, 2000; Grant-Vallone & Donaldson, 2001). Three forms of work-family conflict have been identified by Greenhouse and Beutell (1985): time-based, strain-based and behaviour or role-based conflict. The time-based conflict occurs when commitments in one role negatively impact upon the time available for commitments in another; role-based conflict arises from the incompatibility of the behaviours required in work and non-work roles, and strain-based conflict comes about as the result of strain created in one role limiting the participation in another. This interference is not necessarily unidirectional and can exist from work-to-family as well as from family-to-work (Frone et al., 1992).

In a meta-analytical study by Allen et al. (2000), WLC was found to be associated with work-related, non-work-related and stress-related outcomes, including psychological distress, life and job satisfaction and employee turnover (Frone et al., 1992; O'Driscoll et al., 1992). Although it is necessary to acknowledge the enriching nature of multiple role commitments and suggest that resources are expandable and individuals may in fact benefit from fulfilling several roles rather being drained by them (Marks, 1977), this relationship may be more complex than it appears at first sight. Lingard and Francis (2005) attempted to untangle the unclear theoretical position of the relationship between WLC, job stressors and strain. Their study found that the relationship between work schedule demands and weekly hours worked with emotional exhaustion was mediated by work-family conflict. Similar findings were asserted by Janssen et al. (2004) in their study of Dutch nurses and by Montgomery, Peeters, Schaufeli, and Ouden (2003), who found that work-home interference (WHI) partially mediated the relationship between such job demands as work-load, exhaustion and burnout. Nevertheless, Montgomery et al. only establish the mediating role of WLC between emotional job demands that stem from work related issues that touch people personally and are more likely to be brought home, and exhaustion but not quantitative job demands, such as work overload and exhaustion. This is contrary to the findings of Halbesleben et al. (2009) that suggest higher levels of behavioural engagement are associated

with WHI, a relationship mediated by organisational citizenship behaviour. While the research is inconclusive, I propose that the relationship between job demands, workaholic tendencies (except engagement), and well-being will be mediated by WLC. As there is empirical evidence that supports the association between negative work-family spill-over and low well-being at work (job-exhaustion) and at home (psychological distress) (Kinnunen et al., 2006; O'Driscoll et al., 1992), it will be hypothesised, that

Hypothesis 7 *A higher WLC is expected to reduce employees' well-being (H7a) and is expected to mediate the relationship between the predictors (except engagement) and well-being (H7b).*

4 Methodology and Method

4.1 Methodology

This study aims to test theory through hypotheses, thus adopts a deductive, positivist approach (Limpanitgul & Robson, 2009). According to Levin (1988), positivism posits that reality is stable and can be objectively described and observed. This study will utilise a deductive approach by first generating theory which is later tested empirically. The results should enrich our knowledge about the presence and level of such factors as drive, engagement, work overload and external pressures and whether these factors contribute to employee WLC and well-being, or not. In addition, a deductive approach will utilise the theory that excessive work can negatively influence work-life balance, psychological well-being to generate hypotheses and test the relationships between these constructs (Bryman, 2012). However, this research can also be understood by the critical realism perspective, thus that reality is subjective and can be understood only to a limited degree and that there is difference between actual and real (Limpanitgul & Robson, 2009). Following this perspective, we accept that the social world can be shaped and influenced by our perceptions, experiences and desires and our understanding of these phenomena is restricted, thus our study will be able to be generalised only with a certain degree of probability.

4.2 Participants

According to Bryman (2012) a critical step in a well-designed quantitative research is that of a research site and respondents selection. I proposed an appropriate community for the testing of job demands that denote heavy work investment, engagement and drive to be white-collar workers and professionals. This focus is warranted for two reasons. Firstly, Kelly, Moen, and Tranby (2011) suggest that higher-status employees are more likely to work longer hours and be more engaged than lower-status employees. Secondly, Buelens and Poelmans (2004, p. 453), who first identified the possible existence of the reluctant excessive worker (REW), characterised these individuals as white-collar professionals who are “underpaid, highly pressured, involved but unhappy hard workers”, while work enthusiasts work long hours, manage high work-load, are satisfied with their work and do not want to leave work, similar to engaged employees (Saks, 2006).

Participants for this study were identified by using a snowballing sampling technique. Whilst this technique does not produce a random sample, this data collection methods is useful in researching a sensitive topic (Faugier & Sargeant, 1997), which looking at overtime hours and well-being could be classified as. This method is ideal for the present study as employees may not be encouraged to openly discuss such issues as working in an organisation where the culture is supportive of long working hours or one that applies promotional practices that are linked to long working hours, amongst others.

The effective number of cases was reduced from 191 valid responses to 162, representing a 16% drop-out rate. This decrease was the result of 29 respondents exiting the survey after filling in only the first two scales (20%) of the questionnaire. The respondents were primarily female ($n = 111$, 68.50%) with an average age of 40.5 years ($SD = 12.5$). The participants were primarily married, cohabiting or in a civil union ($n = 126$, 78%). Included in the sample were employees working in the finance and insurance industry ($n = 32$, 20%), followed by the education and training sector ($n = 23$, 14%). Majority of participants were earning between \$70,000 – 100,000 ($n = 53$, 33%) and had been working for their present employer for 6.63 years ($SD = 6.85$); 98 (58%) had children.

4.3 Materials

A total of 43 items were grouped into 8 subsets consisting of 6 validated scales including work-pressures, engagement, drive, work-life conflict, well-being and detachment. In addition, a two items measure of work-load and a two items measure of contracted, respectively overtime hours were included in the questionnaire. (The scales and all items used in the analysis are included in Appendix 1.)

4.3.1 Independent Variables

External pressures and Work overload

The independent variable (IV) of external pressures were measured by three items of the Work-Family Culture scale advanced by Thompson, Beauvais, and Lyness (1999), an example items is *“Employees are regularly expected to put their jobs before their families.”* In addition, three further items were created and added specifically for this study to tap into the heavy work investment element of managerial pressure that examines employees’ perception of the need to show visible commitment to their organisation (Simpson, 1998). e.g. *“In order to improve financial rewards/bonus prospects in this organisation, employees are expected to be present at work longer than their contractual hours require”*. Higher scores indicated greater work pressures on employees to put work before the other spheres of their lives which was also necessary for career advancement and financial rewards. These additional question were included to add further dimension to the measurement of organisational culture. Furthermore, one item the Role Overload measure scale developed by Dougherty and Pritchard (1985) was included to measure workload which sought response to the statement *“It often seems like you have too much work for one person to do.”* This item was included to investigate the level of workload that employees are subject to which, according to Skinner and Pocock (2008), can potentially have an effect on time strain leading to negative consequences.

Contracted and Overtime hours

To assess overtime, respondents were asked how many hours are they contracted to work. As the participation criteria did not specifically stipulated full-time or part-time work status as a prerequisite, respondents came from both groups. In addition to contracted hours,

there was a question assessing how many hours employees work above and beyond their contracted hours per week. This item was labelled as *overtime*.

Employee engagement

The engagement construct was measured by the Job Engagement scale developed by Saks (2006). The Job engagement scale was composed of six items where participants rated their agreement with each of the six statements using a 5-point Likert scale. Sample items are “*Sometimes I am so into my job that I lose track of time*” and “*I really throw myself into my job*”. Higher scores indicated higher job engagement and absorption by the individual. This scale was included in the study because research has demonstrated that engaged employees are hard workers that often invest long hours into work and because engagement has positive impact on individual and organisational outcomes (Beckers et al., 2004; Saks, 2006).

Drive

Employee drive was measured by the Drive scale of the Workaholism Battery developed by Spence and Robbins (1992) and revised by McMillan, Brady, O'Driscoll, and Marsh (2002). The drive scale contains seven items measuring addiction/inner drive to work, e.g. “*I feel guilty when I take time off work*” and “*I seem to have an inner compulsion to work hard*”. Items had to be answered on a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*), where higher scores indicated more workaholic tendencies.

4.3.2 Dependent Variables

Work-life conflict

Seven items from the Work-Life conflict scale developed by Aziz et al. (2013) were used to assess the outcome/dependent variable (DV) by the same name. Example items included “*My work often seems to interfere with my personal life*” and “*I constantly feel too tired after work to engage in non-work activities*”. Respondents were asked to rate the extent of their agreements with the seven statements by using a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*), where higher scores indicated more work interference with other domains.

Health and Well-being

Under the heading of well-being, respondents were asked to indicate how they have been feeling (with answering categories ranging from 1=excellent, 2=good, 3=fair, 4=poor to 5=bad) by answering the question “*How would you rate your health at the present time?*” (Idler & Benyamini, 1997). In addition, the WHO-5 scale measure of general psychological well-being advanced by Bech (1999) was applied to further investigate respondents’ well-being, specifically how they have been feeling in the past month. The scale consists of five items, e.g. “*I have felt calm and relaxed*” and “*I have felt active and Vigorous*”.

4.3.3 Mediating Variable

Psychological Detachment

Employees’ psychological detachment was measured by relevant construct from the Recovery Experience Measure developed by Sonnentag and Fritz (2007) focusing on what individuals do when they are not at work. Sample items included “*I forget about work*”, “*I don’t think about work at all*” and “*I distance myself from my work*”. Items were answered on a 5-point Likert scale where a higher point indicated a stronger preference for work and home domain segmentation.

4.4 Procedure

The items representing the constructs under investigation in this study were compiled in Qualtrics, an online survey tool recommended by the University of Canterbury that offers free access to this service. Information regarding the purpose of the study, the length of time the questionnaire was expected to take to fill in was communicated to the potential participant on the same page where the link to the survey appeared. Participants were able to terminate the survey at any point in time. However, they also had the opportunity to save their already filled in responses if they chose to return to the questionnaire at a later stage. After the construction of the on-line survey, seven copies were printed and distributed to other university students and staff as a pilot study, to ascertain whether the questions and the format was user friendly and correctly understood by respondents. Once feedback was received and acted upon, by making some amendments to the wording of items or their ordering, the survey was finalised. Initially, 45 e-mails were sent out to friends, family and

other personal contacts that fulfilled the criteria of participation, thus were white-collar workers in employment. These contacts were asked to fill in the survey and forward the original e-mail to their own contacts that they believed to fit the criteria. In addition, a thank-you was offered for participation in the form of a prize draw for one of five \$100 vouchers in a local shopping mall. While participation was anonymous and confidential, participants that chose to go into the draw were asked to leave their contact details they wished to be notified by. In addition, participants were also offered to receive a copy of the summary of the results on completion of the research. If they chose to do so, they were also asked to leave their contact detail behind where the summary could be sent to. Nevertheless, in both cases, participant were assured that their contact details were not going to be linked to their responses and will be destroyed as soon as they fulfilled their purpose. The prizes were drawn once the on-line survey was closed. The prize draw occurred under supervision and was registered and the vouchers mailed by a University of Canterbury staff.

5 Ethical Considerations

Ethical implications have been considered for this study. For compliance with the guidelines of the University of Canterbury (UC) Human Ethics Committee (HEC) an application form was logged and approved. An information sheet was provided to advise potential participants about the purpose of this research, how to proceed with filling in the survey, how the researcher intends to ensure that the data (personal or otherwise) remain anonymous and protected from misuse for other purposes that it was intended for. While the on-line survey was anonymous, if participants wished to go into a draw to win a prize, which is used to incentivise participation, they needed to indicate this intention. Upon indication, they were redirected to a separate page where they able to leave their contact details. This data was kept in a separate file and was not linked to the survey responses. Every care was taken to safeguard the well-being of partakers. An electronic copy of the data was stored and password protected, while the hard copies of the data were securely stored by the Management, Marketing and Entrepreneurship department at the UC.

6 Data editing and diagnostic results

All the variables were scanned for univariate outliers to reduce the possibility of bias. Some out-of-range values were identified for age and overtime hours that warranted attention. After a visual inspection I deemed some data being mistyped or incorrectly recorded, such as age of participant being four, or overtime hours being 45, when contracted hours were 40. These data were either corrected or recorded as missing. I ran tests to assess the standardised residuals and Cook's distance for the regression analysis. 95% of standardised residuals lie within the bounds of -1.96 and +1.96 and indicated no issues with outliers (Tabachnick & Fidell, as cited in Field, 2013). Furthermore, I ran a test that assesses Cook's distance for each case, as is suggested by Field (2013), to measure the overall influence of each individual case on the model. A greater than one value would have suggested a potential that a single case may be influencing the model (Cook & Weisberg, 1982). None of the values however were cause for concern. In addition, tests for linearity and homoscedasticity by using scatterplots, were also satisfactory. Furthermore, a visual, scale-level inspection of data and Little's missing values analysis in SPSS were performed to determine whether missing values posed an issue in the data (Little, 1988). Based on the results, missing values were deemed to be missing completely at random (MCAR) and they were deleted list-wise in any consequent analysis, as suggested by Field (2013).

6.1 Measurement models – scale level EFA

To demonstrate the independence and uniqueness of the measures Exploratory Factor Analysis (EFA) was conducted. The four items included in the questionnaire that required reverse coding were recoded to ensure that the higher scores reflected a more positive attitude towards work. First, an analysis was run separately for each scale to determine their factorability. The method for factor rotation was determined on the basis that psychological factors are likely to correlate (Field, 2013). Therefore, I chose direct oblimin factor rotation, which allows for correlations between factors. I used principal axis factoring for extraction. Furthermore, the delta, or level of correlation, was set at the default level of zero as recommended by Pedhazur and Schmelkin (1991).

The KMO measuring sampling adequacy for the six validated scales yielded values between 0.74 and 0.89 where values closer to 1 should yield distinct and reliable factors.

According to Kaiser (1974), values over 0.7 are acceptable. In addition, I conducted a Bartlett's test to examine whether the items in the scale correlated well with each other, thus whether the correlation matrix is significantly different from an identity matrix (Field, 2013). Even though the usefulness of this test can be questioned when sample sizes are large, in my case none of the scales yielded non-significant results. There were no issues detected with multicollinearity, and the scree plot examination corresponded with the pattern matrix outputs for each of the scales.

The results of the scale level EFA were encouraging, nevertheless some results warranted further examination. For example, the Drive scale loaded onto two factors, and while the loadings for both factors were relatively high (0.54 - 0.90), the second factor that included three of the drive scale items suggested inconsistency with the scale. After re-examining the items causing concern, that is "*Between my job and other activities I am involved in, I don't have much free time*"; "*I feel guilty when I take time off work*" and "*I often find myself thinking about work, even when I want to get away from it for a while*" it seemed that these items could be equally describing either WLC or detachment rather than just workaholism-related behaviour. In addition, I found that the reversed item of the engagement scale seemed to have low communalities (0.21) and relatively low loading (0.39). These variables were therefore further investigated in the multi-scale factor analysis and the reliability testing of individual scales.

6.2 Multi-scale EFA

I conducted separate multi-scale EFAs for both of the outcome variables of WLC and well-being. These tests contained the four IVs of drive, work-pressure, engagement and detachment. I found that two items in the drive scale (DRV6 and 7) and one item from the engagement scale (ENG04) did not load to the expected factors when included in the analysis with WLC as the DV (Appendix 2). This process was repeated for the well-being as the DV with similar results (Appendix 3). Because of these unsatisfactory outcomes I tested the factor loadings with the exclusion of the above items and found that the pattern matrix improved considerably (Appendix 4). However, before I removed these items I wanted to see whether their removal would affect the reliability of the scales in question.

6.3 Reliability analysis

To investigate the potential gender differences, group-level differences were first explored. An independent sample *t*-test was carried out to determine if there were differences between males and females on the IVs. The mean scores showed significant differences between men and women for three of the independent variables, that is, overtime hours for men were higher than for women ($M=6.59$ vs 4.22 , $p < .05$), engagement for women was higher than men ($M=3.63$ vs 3.36 , $p < .05$) and drive was higher for women than men ($M=3.57$ vs 3.88 , $p < .05$). When comparisons between employees with different family status were made, there were no significant differences between single parents/non-parents and married parents/non-parents on their level of perceived conflict. However, parents with children under the age of 6 years were more likely to agree or strongly agree that they experienced more conflict between their work and family roles than other participants (37%) compared to other participants (21%). Parents with young children were more likely to report that they felt overwhelmed by their family demands (54% vs. 47%). There were no other significant differences between employee demographics and the other variables under investigation.

Table 1 summarises the number of cases (N), means, standard deviation (SD) and Pearson's correlation coefficients for the variables and Cronbach's alpha for each measurement scale. To test for multicollinearity, I applied an iterative process in SPSS where the IVs were tested for their variance inflation factor (VIF), which indicated whether a predictor had a strong relationship with another predictor. According to Bowerman and O'Connell (1990) concern should be raised when either the largest VIF is greater than 10 or the average is substantially greater than 1. Both of these tests yielded satisfactory results as the largest VIFs was 1.07 while the average 1.66. The tests for linearity and homoscedasticity were also satisfactory.

6.4 Inter-variable correlations

While I did not specifically hypothesise on the relationships amongst the variables in this study, it can be established that most associations were similar to what previous research and theory would suggest. The outcome variable of WLC was significantly related to all other variables, except engagement ($p < .01$). This correlation was as high as $r = .51$ for external work pressures, $r = .47$ for workload, and $r = .35$ for overtime hours and drive $r =$

.27, while a negative $r = -.38$ for achieved for psychological detachment ($p < .01$). The outcome variable of well-being had a moderate relationship with WLC ($r = -.44$), workload ($r = -.30$) and external work pressures ($r = -.27$; all $ps < .01$). Detachment, as a potential mediator, was significantly and negatively related to four of the five predictors, overtime hours ($r = -.36$) reaching the highest value, followed by engagement ($r = -.26$), drive ($r = -.17$) and work pressure ($r = -.16$) and negatively correlate with the outcome variable of WLC ($r = -.38$; all $ps < .01$) but not with the outcome variable of well-being.

Table 1*Inter-scale Correlation Matrix with Mean, SD and Person's Correlations*

	Cronbach's Alpha	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Gender	-	-	-										
2. Age	-	41.08	12.04	-.03									
3. No. of Children	-	1.25	1.26	-.06	.63**								
4. Work Pressures	.89	2.37	0.83	-.09	.01	-.01							
5. Work-load	-	3.36	1.06	.10	-.07	-.07	.33**						
6. Overtime Hours	-	4.95	5.05	-.23**	-.01	.06	.20*	.36**					
7. Drive	.85	3.78	0.71	.20*	-.13	-.01	.04	.16*	.32**				
8. Engagement	.83	3.55	0.67	.18*	.01	.06	-.14	.19*	.31**	.29**			
9. Detachment	.82	3.06	0.75	.11	.06	-.07	-.16*	-.15	-.36**	-.17*	-.26**		
10. Work-life Conflict	.89	2.63	0.84	.01	.01	.12	.51**	.47**	.35**	.27**	.10	-.38**	
11. Well-being	.88	3.09	0.75	-.15	.11	.08	-.27**	-.30**	-.11	-.17*	.15	.10	-.44**

*Notes. N=162, Listwise** $p < .05$. ** $p < .001$.

Gender is coded as 0 = male, 1 = female

6.5 Hierarchical Regression Analyses

Hierarchical regression analyses in SPSS were used to test the predictors' contribution to the outcome variables of WLC and well-being of employees. For each of the outcome variable of WLC and well-being the following control variables were entered in Step 1: gender (codes as 0 = male, 1 = female), age and number of children. The use of the above control variables was warranted by previous research that shown that age, gender and the number of children may contributed to the spillover of work experiences into other spheres of employees' lives as well as affect employees' well-being (Shmotkin, 1990; Skinner & Pocock, 2008). It is reasonable to suggest that women may experience higher levels of WLC due to higher caring and household responsibilities and that well-being is influenced by age to a certain degree (Skinner & Pocock, 2008). The six predictor variables of work pressures, overtime hours, work-load, drive, engagement and psychological detachment from work were entered in Step 2. Table 2 displays the results for the two outcome variables. The contribution of the control variables to the WLC outcome entered in Step 1 were statistically non-significant ($R^2 = .02$; $p > .05$). However, after entering the predictor variables in Step 2, the total variance explained by the model increased to 50% ($p < .001$). The introduction of the added variables in Step 2 explained an additional 47% variance in WLC, where four variables were statistically significant. The highest value of contribution was explained by work pressures ($\beta = .38$, $p < .001$), followed by detachment from work ($\beta = -.25$, $p < .001$), work-load ($\beta = .23$, $p < .01$) and drive ($\beta = .18$, $p < .05$), thus supporting H2a, 3a, 4a and 5a. However, overtime hours did not contribute to employees' WLC, consequently not supporting H1.

Table 2

Hierarchical Regression Analysis Predicting WLC and Well-being

Model	Work-life conflict				Well-being			
	Step 1 B	Step 1 β	Step 2 B	Step 2 β	Step 1 B	Step 1 β	Step 2 B	Step 2 β
Variable								
Gender	.01	.01	.06	.03	-.25	-.15	-.31*	-.19*
Age	-.01	-.10	.00	-.03	.01	.11	.00	.00
No. of Children	.13	.20	.11	.17	-.01	-.01	-.01	-.02
Work Pressures			.38***	.37***			-.13	-.15
Work-load			.23***	.29***			-.19***	-.27***
Overtime Hours			.01	.07			-.01	-.05
Drive			.18*	.15*			-.14	-.13
Engagement			-.06	-.05			.32***	.29***
Detachment			-.25***	-.22***			.08	.09
ΔR^2	.02		.48***		.04		.21***	
ΔF	1.29		23.51		1.89		6.99	
R^2	.02		.50***		.04		.25***	
F	1.29		16.47		1.89		5.44	

Notes. B = unstandardised; β = standardised; Male = 0; Female = 1

* $p < .05$. ** $p < .01$. *** $p < .001$.

The same steps as in the above process were followed for testing the antecedents' influence on well-being. The contribution of the control variables added to the model predicting well-being of employees in Step1 were not statistically significant. Nevertheless, when the predictor variables were entered to the model in Step 2, the total variance explained by the model as a whole was 25% ($p < .001$). The introduction of the added variables in Step 2 explained an additional 21% variance in well-being, where two variables were statistically significant. The highest value of contribution was explained by engagement ($\beta = .32$, $p < .001$), followed by work-load ($\beta = -.18$, $p < .001$), supporting H2b and H5b. However, neither external work pressures, nor drive predicted employee well-being, thus failing to provide support for H3b and H4b. In addition, gender explained a significant variance in Step 2 ($\beta = -.18$, $p < .05$), which suggested that men had higher well-being than women in this sample.

In order to test H7a, I conducted another hierarchical regression to see whether by entering WLC into the predictor model for well-being, changes the outcome. Therefore, after entering the control variables in Step 1 and the predictors in Step 2, I added WLC as a predictor in Step 3 to the model that assessed the variance explained in well-being. The results are displayed in Table 3. This test is warranted by suggestions that WLC is a stressor for many employees and can lead to aversive effects on well-being.

Table 3

Hierarchical Regression Including WLC as a Predictor of Well-being

Well-being						
Model	Step1 B	Step1 β	Step2 B	Step2 β	Step3 B	Step3 β
Variable						
Gender	-.25	-.15	-.31*	-.19*	-.29*	-.18*
Age	.01	.11	.00	.07	.00	.06
No. of Children	-.01	-.01	-.01	-.02	.02	.04
Work Pressures			-.13	-.15	-.01	-.02
Work-load			-.19***	.27***	-.12	-.16
Overtime Hours			-.01	-.05	.00	-.03
Drive			-.14	-.13	-.08	-.08
Engagement			.32***	.29***	.31***	.27***
Detachment			.09	.09	.01	.01
Work-life Conflict					-.31***	-.35***
ΔR^2	.04		.21***		.06***	
ΔF	1.89		6.99		13.19	
R^2	.04		.25***		.31***	
F	1.89		5.44		6.61	

Notes. B = unstandardised; β = standardised

* $p < .05$, ** $p < .01$, *** $p < .001$.

Once again, the effects of demographic variables were mostly non-significant, except to gender in Step 3 ($\beta = -.18$, $p < .05$). As Step 2 has been already interpreted above I will straight move to the effect of WLC on well-being. By adding WLC to the model the total variance explained by the model a whole increased to 35% ($p < .001$). The introduction of the added variable to the model in Step 3 has explained an additional 6% variance in well-being. The value of the contribution of work life conflict was statistically significant negative ($\beta = -.31$, $p < .001$).

6.6 Mediation

According to Hayes (2013) the analysis of mediation serve to explain how an IV influences a DV through a causal instrument. Conceptually the model of a simple mediation is depicted in Figure 2.

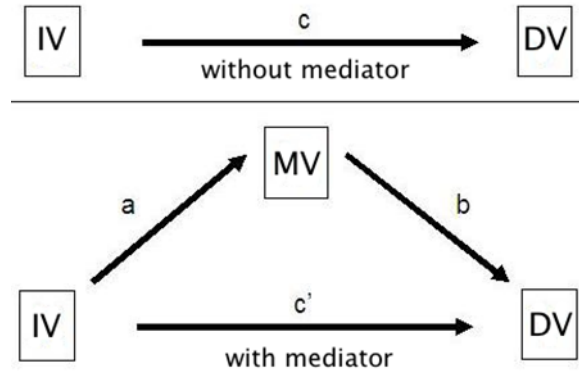


Figure 2. Conceptual model - Simple mediation (The Institute for Digital Research and Education, n.d.). Reprinted with permission.

The model shows how an IV can influence a DV through a mediating/intervening variable (MV), thus how the effect of IV on MV and consequently MV's causal effect on DV results in a variation in the DV. While, according Baron and Kenny (1986), the precondition for mediation traditionally required the existence of a direct relationship between the IV and the DV, however, the modern approach does not require the fulfilment of this condition, while it is still necessary to establish a relationship between the IV and MV and the MV and DV (Hayes, 2009; Hayes, 2013). Along the similar lines, Kenneth A Bollen (1998) argue that the lack of correlation does not disprove causation. Thus, even though the data in this study do not show correlation between some of the IVs and DVs, it is not a barrier for carrying out mediation testing.

In addition, Hayes (2013) strongly believes that even when the data does not necessarily lend itself to causal inferences, such as in the case of this study, as the data was collected at a single point in time and was not experimentally manipulated, mediation analysis can be carried out. Given the limitations of the data, sometimes the only grounds we

can infer causal relationships is built on theory or solid arguments, even if it may not be unequivocally possible to establish causality (Hayes, 2013).

6.6.1 The mediating effects of Detachment between the predictors and WLC

I used Structural Equation Modelling (SEM) in AMOS, a casual modelling software, for assessing the mediation effects of psychological detachment and work-life conflict in this study. First I ran the test to measure the relationship between the IVs and work-life conflict, mediated by detachment (Figure 3). The goodness of fit of the model was assessed through the Chi-square measure (Baron & Kenny, 1986; Kenneth A. Bollen, 1989) where the model-fit, more precisely model misrepresentation, if significant, indicates that the model does not fit the data. This measure is a reasonable fit for sample sizes of less than 200 cases (Kenny, 2014). Findings from the structural equation modelling analysis suggested the hypothesised model fit the data well ($\chi^2 [(17, 162)] = 16.02, p = .522$). In addition, it is prudent to evaluate the Comparative Fit Index (CFI) that compares the researcher proposed model's incremental fit over the restricted model with no relationships being specified between variables (Bentler, 1990). In a most recent study by Hu and Bentler (1998) this index should be above .95 and the closer it is to 1, the better the fit, thus a CFI = 1 in this model means a good fit. Furthermore, Weston and Gore (2006) suggest reporting the root mean square error of approximation (RMSEA), which corrects for model complexity, where a simpler model will have a more promising RMSEA value, thus the RMSEA=.000 in this model is encouraging (Steiger, 1990). The number of bootstrap samples ran in these tests were 2000 at a 95% bias-corrected confidence interval level.

I found that overtime hours and engagement influenced employees' work-life conflict through its effect on detachment from work, that is, through their inability to detach from work when not at work. This finding partially supports H6, as mediation was not supported for external work pressures, workload and drive but upheld the expectations for overtime hours and engagement. Table 4 shows the results of the analysis. Bias-corrected bootstrap confidence intervals for the indirect effects for overtime hours ($ab = .07, p < .001$) and engagement ($ab = .05, p < .01$) were entirely above zero. Neither overtime hours ($c' = .06, p > .05$) nor engagement ($c' = -.04, p > .05$) influenced work-life conflict independently of psychological detachment. As seen from Table 4, the strength of the path that was significant before the addition of the mediator for work-load, drive and work-pressure dropped to non-significant for the indirect effect.

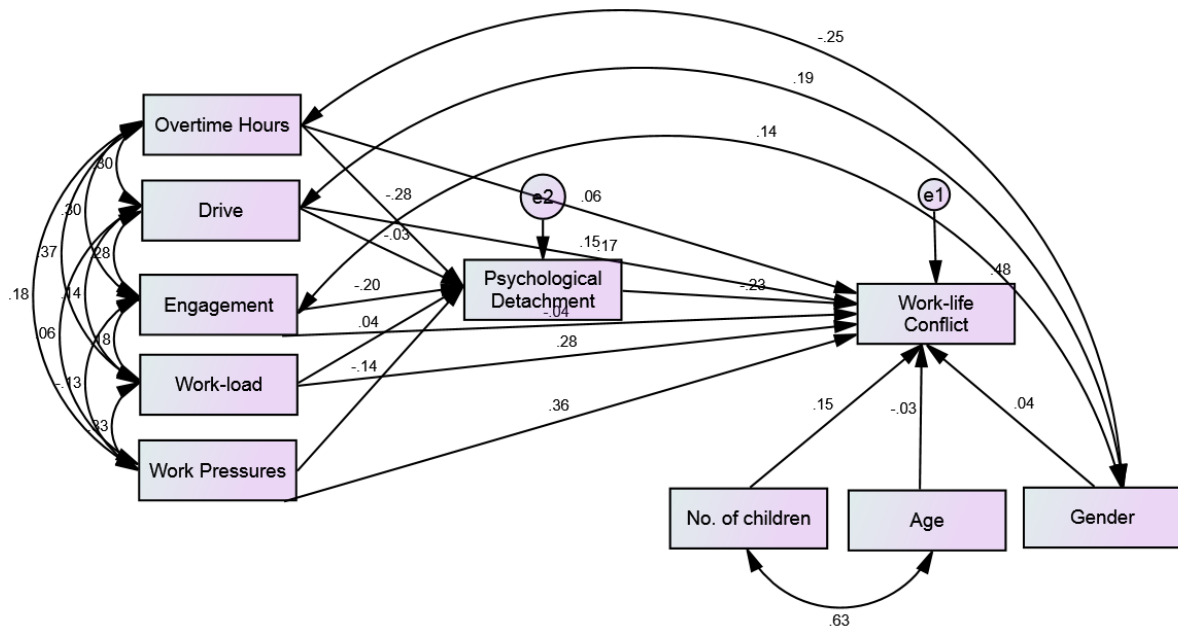


Figure 3. Results of path analysis testing the mediating effect of Detachment between the predictors and Work-life Conflict. Standardised β coefficient are displayed.

6.6.2 The mediating effects of WLC between the predictors and well-being

The same process was followed in analysing the influence of work-life conflict on the relationship between the predictors and well-being, which results are displayed in Figure 4. Findings from the SEM analysis suggested the hypothesised model fit the data well ($\chi^2 [(17, 162)] = 17.84, p = .399, CFI = .997, RMSEA = .017$), which is good. Three out of the five predictors, namely work pressures, drive and work-load, influenced well-being through its effect on work-life conflict, except for overtime hours, partially supporting H7b. Bias-corrected bootstrap confidence intervals for the indirect effects for work-load ($ab = -.10, p < .001$), work pressure ($ab = -.15, p < .001$) and drive ($ab = -.07, p < .01$) were entirely above zero. In addition, there was no evidence that these predictors influenced well-being independently from the mediating effect of work-life conflict (Table 5). Table 5 also shows that for the predictors of drive and work-pressures, the previously insignificant direct effect, while remained the same or dropped in strength, became statistically significant when the mediator was included in the model.

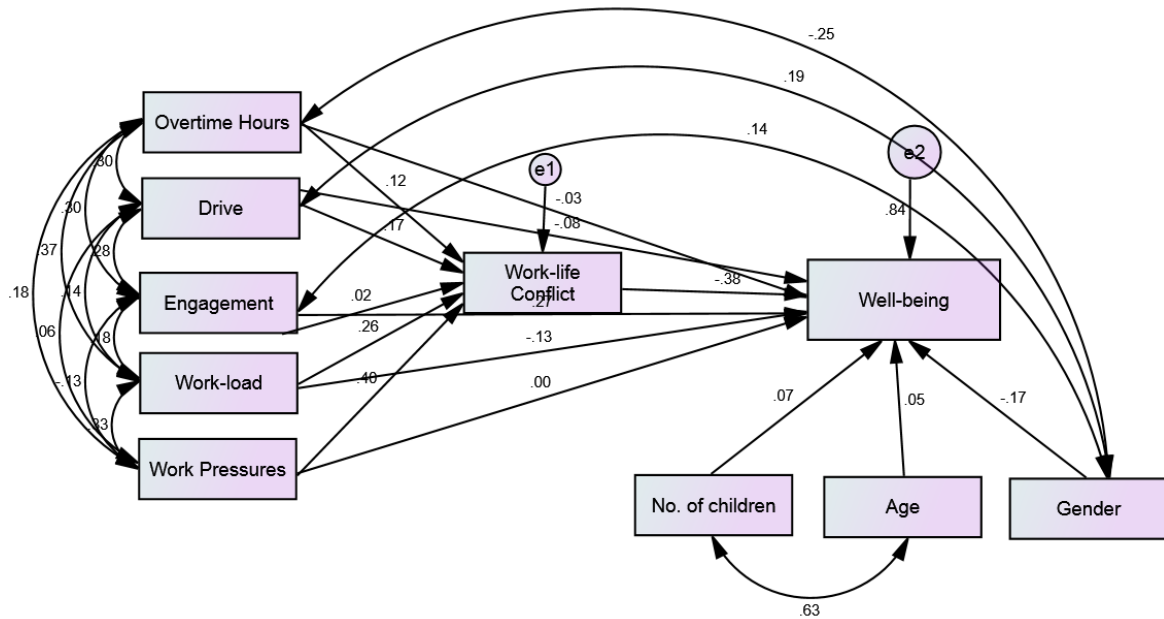


Figure 4. Results of path analysis testing the mediating effect of Work-life Conflict between the predictors and Well-being. Standardised β coefficient are displayed.

While there were no significant total effects between the IV and outcome variables in these cases, this should not be viewed as a shortcoming of the results. Several authors recently suggested that indirect effects can be shown without total or direct effects, which, if becomes a focus, can impede research progress (Hayes, 2009; Rucker, Preacher, Tormala, & Petty, 2011). The mediations found in this study suggest full-mediation, which Baron and Kenny (1986) hold as a gold standard, however the above mentioned authors rejected the use of partial or full mediation on similar basis as above, that is, that full mediation would likely discourage further research and partial mediation somehow would suggest a lesser or less impressive finding, when the case is not necessarily so.

Table 4

Mediation effect of Psychological Detachment Between the Relationship of the Predictors and Work-life Conflict

Path	Total Effect (c)	Direct Effect (c')	Indirect Effect (ab)	SE	BC95% CI Lower	BC95% CI Upper	Sign/NS (ab)
HRS - DTCH - WLC	.12	.06	.07***	.02	.03	.12	Sign
WLD - DTCH - WLC	.27***	.28***	-.01	.02	-.04	.02	NS
DRV - DTCH - WLC	.16*	.15*	.01	.02	-.03	.05	NS
WP - DTCH - WLC	.40***	.36***	.03	.02	.00	.07	NS
ENG - DTCH - WLC	.01	-.04	.05**	.02	.01	.08	Sign

Notes. HRS = Overtime Hours, WLD = Work-load, DRV = Drive, WP = Work-pressures, ENG = Engagement, DTCH = Psychological Detachment, WLC = Work-life Conflict,

NS = Non Significant, * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Mediation Effect of Work-life Conflict Between the Relationship of the Predictors and Well-being

Path	Total Effect (c)	Direct Effect (c')	Indirect Effect (ab)	SE	BC95% CI Lower	BC95% CI Upper	Sign/NS (ab)
HRS - WLC - WB	-.07	-.03	-.05	.01	-.12	.00	NS
WLD - WLC - WB	-.23*	-.13	-.10**	.06	-.18	-.05	Sign
DRV - WLC - WB	-.14	-.08	-.07**	.08	-.13	-.02	Sign
WP - WLC - WB	-.15	.00	-.15**	.07	-.27	-.07	Sign
ENG - WLC - WB	.27**	.27**	-.01	.08	-.07	.05	NS

Notes. HRS = Overtime Hours, WLD = Work-load, DRV = Drive, WP = Work-pressures, ENG = Engagement, WLC = Work-life Conflict, WB = Well-being,

NS = Non Significant, * $p < .05$, ** $p < .01$, *** $p < .001$.

7 Discussion

7.1 Interpretation of findings

The primary goal of this study was to examine the direct and indirect relationships between job demands, engagement and drive and the outcomes of WLC and well-being. As establishing the importance of the predictors for WLC and well-being sets the tone for the rests of the findings, I will begin my discussion with the assessment of the ability of job demands, engagement and drive to predict employee WLC and well-being. I will then discuss the findings of the indirect, mediated relationships between the predictors and WLC and well-being. Finally, I will consider the practical and theoretical implications and limitations of the study.

The present study revealed some important findings concerning WLC and well-being. As hypothesised in H2a and H3a, job demands, specifically workload and external work pressures, were important predictors of WLC. External work pressures emerged as the most important predictor of WLC, while workload also made a significant contribution. It is perhaps not surprising that having too much to do for one person, or that management's expectations to put one's work before the other spheres of their lives is detrimental to achieving work-life balance, as has been found by previous research (Ilies et al., 2007; Perlow, 1995; Skinner & Pocock, 2008; Thompson et al., 1999). Furthermore, as one would expect, drive predicted WLC. This finding lends support to the suggestions of Aziz et al. (2013) and Robinson (2001), that is, that individuals who are characterised by heavy work investment, long working hours and high workload but without enjoyment or satisfaction from the activity, may neglect other interests in their life, leading to WLC.

In addition, the hypothesised (H5a) lack of direct influence of engagement on WLC was supported by the present study, a finding that adds to the limited empirical research that has investigated the impact of engagement on WLC. Up to date, the association between engagement and WLC has only been supported through a mediator, such as organisational citizenship behaviour, investigated by Halbesleben et al. (2009). While research measuring the possible link between engagement and WLC is scarce and needs further investigation, there is empirical and conceptual support for linking engagement and work-life balance the positive affect theory proposed by Marks (1977). Marks argues that an increase in one's

energy and engagement can lead to positive affect, which can lead to higher engagement in other roles; thus pursuing multiple roles is more advantageous than conflict creating. This rationale was also put forward by Greenhaus and Powell (2006) in a conceptual paper. In addition, Berg, Kalleberg, and Appelbaum (2003) established a relationship between intrinsically motivating, engaging jobs - often jobs that white-collar workers are involved in - that are challenging, creative and require skills and work-life balance. Taking the definition of work-life balance offered by Clark (2000, p. 751), that is, the “satisfaction and good functioning at work and at home with a minimum of role conflict” or the absence of conflict between the demands of work and non-work lives, as proposed by Greenblatt (2002), it appears that Berg et al.’s findings can be interpreted as engaging jobs and work engagement reduces WLC. The findings of the present study fit with existing theorisation. Indeed, I specifically recruited white-collar workers for this study, who are likely to have rewarding and skill-requiring jobs. It is clear, however, that more research is needed in the area of engagement and its potential negative consequences, which this study attempted to rectify by considering indirect links in this relationship, as the discussion on the mediation findings will show.

What, however, was unexpected from the results between the predictors and WLC is that overtime hours, while associated with WLC and workload, failed to be important in predicting WLC, contrary to my hypothesis (H1) and previous findings (Frone et al., 1997; Kinnunen et al., 2006; Macky & Boxall, 2008; Major et al., 2002). One possible explanation for this finding is that it is the *perception* of time demands rather than the actual time that matters for WLC. This notion is supported by Macky and Boxall (2008, p. 51), who ascertain that “... perceptions of pressure from managers to take work home, work overtime or otherwise exceed one’s contracted hours appear to be more important than actual working hours for stress and fatigue ...”, although all three variables were associated with WLC and stress. Furthermore, the time element of work might have been captured by the external pressures construct, which was a highly relevant variable for explaining WLC. This variable measured whether employees were expected to take work home at night and/or on the weekends or whether they felt that rewards, job security and career advancements required working longer than their contractual hours. This way overtime hours may have been captured in a subjective manner, rather than objectively as overtime hours would denote. Nearly a century ago, Thomas (1927) drew our attention to the importance of perception; that is, if people perceive situations as real for them, they become real in their consequences.

Therefore, if employees feel pressured to work longer, although they may not actually be working longer hours, the pressure to do so matters. In addition, the average overtime hours measured in this study ($M = 4.96$), which equals approximately to one extra hour per day, might not constitute “long” hours for employees in this sample. It may often be the case with salaried, white-collar employees, who are more likely to be engaged and may choose to work long hours or accept overtime as “part and parcel” of the job or position, that they do not perceive the activity as detrimental (Wallace, 1997). Furthermore, it is also possible that the workload was simply a much more salient predictor of both, WLC and well-being, to the point that it diminished the potential influence of overtime hours on these outcome variables.

Hypotheses H2b and H5b, predicting that workload negatively and engagement will positively contribute to well-being, were investigated by testing the relationship between the predictors and well-being. As theorised, workload influenced well-being significantly, further reinforcing previous studies, for example, Frone et al., 1992. It was also expected, and found, that engagement does have a positive effect on employee’s well-being. This finding, perhaps, can be explained through the role attention and absorption component of the construct that is associated with high satisfaction that leads to high energy (Macey & Schneider, 2008; Saks, 2006). However, not establishing support for the negative relationship between external work pressures, drive and well-being, was somewhat surprising. Even though Burke (2000) and McMillan and O’Driscoll (2004) did not find drive to be a predictor of well-being, my expectation in this study was the opposite. This expectation was based on the premise that I omitted the enjoyment scale from the measure of workaholism, as the definition adopted in the present study viewed this construct as an uncontrollable inner drive, similar to addiction that compels one to work without enjoyment (Oates, 1968). Thus, I anticipated that without the potential buffering effect of enjoyment on workaholism, drive would have a negative influence on well-being. The lack of predictive ability of work pressures and drive on well-being, however, may be explained by the path between job challenges and well-being being a more complex one; one that may be explained by including mediating variables to clarify the link (Montgomery et al., 2003), which was tested and will be discussed. Additionally, the finding that WLC explained a significant variance in well-being, above and beyond that explained by engagement, thus supporting H7a, and was moderately correlated to well-being ($r = -.44$), may suggest that well-being may be further along the causal chain. Thus, in this sample, the IVs effect on well-being can be established through a mediator. This proposition was also suggested by Ward and Steptoe-Warren (2014) and was tested in the present study

by using WLC as a mediator between the predictors and well-being. Furthermore, it may also be the case that simply the importance of engagement for well-being is much greater than that of either drive or work pressure in the present model.

In general, the findings of this study support the JD-R model by providing further evidence of the negative implications of job demands on WLC and partially on well-being. By applying the hindrance/challenge dichotomy to workload, where job challenges are suggested to deplete or stimulate an individual's energy, hence relate positively to ill health or well-being, it appears, that work overload evoked a negative rather than a positive feeling of stress. Nevertheless, the suggestion in the JD-R model that job resources have a positive effect on well-being was strengthened by the present study through the relationship between engagement and employee well-being. In several cases, where the direct relationship was not ascertained, literature suggests a possibility for the presence of a mediated relationship, which I tested accordingly. I therefore used psychological detachment as a mediator between the predictors and WLC, consistent with the COR theory. My findings partially supported H6, as psychological detachment mediated the relationship between some of the predictors – engagement and overtime hours – but not others. While the lack of support for some of the predictors in this study was unexpected, suggestions can be provided to explain these outcomes. I will first, however, discuss the findings that supported the hypotheses.

Psychological detachment can be viewed as a personal resource used for recovery, allowing for its integration into the JD-R model. For engaged employees who are identified by high absorption, the outcomes can be varied. While engagement can motivate employees through positive work experiences, it can also drain their cognitive and affective resources through the negative experiences at work, hindering psychological detachment from work, thus recovery (Sonnentag et al., 2008). Similarly, as employees may choose to work overtime hours voluntarily, because of commitment or engagement, the same logic could apply for employees who work overtime. As a consequence, by struggling to get work-related thoughts off their mind, engaged employees may find it difficult to focus on relaxing activities that would help their recovery. In addition, this theory may be applicable to overtime work in a different way: namely on the basis that the reduced time proximity between work and after work activities by working overtime provides the link that facilitates the potential spill-over of emotional demands of the job to other spheres of one's life.

Nevertheless, while psychological detachment explained the link between engagement and overtime hours and WLC, it failed to support the mediation between the

other variables: work-load, drive and work-pressures and WLC. One possible explanation for this result may be the measurement scale used for detachment in this study (Sonnentag & Fritz, 2007). This measure did not consider time-related detachment but solely focused on employees' emotional/mental distance from work. While the job demands under consideration in this study may indicate heavy work investment, they do not necessarily infer psychological attachment to a job; thus the need for psychological detachment, as the behaviour itself is likely to be induced by external pressures, rather than individual choice as suggested for engagement. Furthermore, as the effort exerted by engaged employees is likely to be discretionary, it may suggest greater emotional involvement (Macey & Schneider, 2008; Wallace, 1997) than in a case of the effort being externally pressured, such as work-load or managerial expectation for heavier work investment. The findings of the present study therefore suggest that work engagement may also have potentially negative outcomes. This is true for employees who are highly engaged and find psychological detachment from work, when not at work, difficult to achieve. The inability to relax, fully immerse themselves in other activities, and restore their energies before returning to work, may lead to WLC, and potentially, even to performance issues. This novel finding further enriches the limited literature in this area, such as the study by Halbesleben et al. (2009), who ascertained the mediating effect of organisational citizenship behaviour between engagement and work-life conflict. It, furthermore, suggests that not only behaviours at work but also ones undertaken out of work can have detrimental effects, through increasing employees WLC, which makes organisational work-life balance and well-being interventions that much more difficult. Thus, the finding highlights the importance of segmenting one's work from non-work roles in order to successfully detach and recover from work demands.

Last but not least, the finding that WLC mediates the relationship between several independent variables and well-being suggests that the often reported direct association between these constructs may be best understood as an indirect relationship. As the mediation model indicated, work interference with other spheres of one's life is an important mediating factor between such demands as external work pressures, work-load and drive, partially supporting H7b. Thus, these job demands may not directly impact upon employees' well-being, but instead increase their WLC, which in turn can have undesirable health implications, as shown in a similar study by Lingard and Francis (2005) and Bacharach et al. (1991). Nevertheless, the present study failed to support WLC's mediating effect for overtime hours. Perhaps, this is not that surprising if we consider that overtime hours did not predict

neither WLC nor well-being, as previously explained. This result is contrary to such findings as those by Montgomery et al. (2003) and O'Driscoll et al. (1992). One explanation might be that the present study measured general well-being, while the one by Montgomery et al. focused on the specific dimensions of burnout. Furthermore, the psychological strain measured in the O'Driscoll et al. study included items measuring enjoyment, one's coping abilities and feelings of self-worth, which was not the case in the present study. In addition, and one can only speculate, perhaps it matters that the three variables that led to WLC and consequently well-being, were variables out of the employees' control, as they are controlled by inner drive or external pressures. This may suggest that a behaviour that is voluntary, compared to one that is imposed, can make a difference in the perception of outcome. This notion is supported by the findings of Ngah, Ahmad, and Baba (2009), who ascertained that a higher internal locus of control (LOC) was associated with reduced WLC, thus employees who felt in control of events in their lives experienced less work to family interference.

7.2 Limitations and future directions

Two methodological limitations, in particular, need to be acknowledged in this study. First, although the models used in this study were theory driven, the use of cross-sectional design does not allow for the recognition of the hypothesised relationships as causal, therefore future research should conduct a longitudinal study to improve the detection of causality. Second, the use of self-reported data and cross-sectional design raises the issue of common-method variance (CMV). To minimise the potential for CMV there were several steps taken in this study, such as using well validated scales to ensure the adequacy of the psychometric properties of the constructs (Spector, 1987) in addition to the ex-post remedy of performing a CFA to confirm factorial independence of the scales used (Richardson, Simmering, & Sturman, 2009). However, to further reduce social desirability bias, I perhaps should have asked the questions pertaining to the outcome variables before the questions dealing with the antecedents in this study, as Macky and Boxall (2008) cleverly did in their study. In addition, future research may wish to use other measures than solely self-reports when examining the relationship between antecedents, psychological detachment, WLC and well-being. Asking participants' spouses or children about their partner's or parent's psychological detachment or work interference with family may be an option towards getting a more comprehensive view of how these issues are perceived by others. It is possible that employees who gain status or financial rewards for their heavy work investment may not see

the outcomes in the same light as their family members who may care more for their psychological and physical availability than other compensations.

Furthermore, while the JD-R is helpful in analysing the relationships between job demands and resources and different outcomes, as well as mediated relationships, as seen in this case, Bakker et al. (2005) suggest that the use of the JD-R model should be more targeted. What this means is that variables used in studies should be relevant for the given occupational domain under investigation, avoiding the generalisation that the same job characteristics are important in all jobs. Therefore it would be beneficial to direct future research to investigate the mediation of engagement and WLC by detachment in occupations where they are highly relevant, perhaps in jobs with high frequency of customer contact or nursing positions where the importance of psychological detachment from work when not at work is heightened.

As suggested by Ward and Steptoe-Warren (2014), the effects of WLC on well-being may become evident over time, a suggestion that warrants possible future research using longitudinal design to this effect. Furthermore, this study tested psychological detachment as the only mediator between its predictors and WLC. While it adds to Halbesleben et al. (2009) use of organisational citizenship behaviour as a mediator in a similar model, future research may use other potential mediators that could further explain relationships between engagement and WLC.

7.3 Practical and theoretical implications

This study supported several expectations regarding the antecedents of WLC and well-being, which further emphasise the need for organisations to pay attention to job demands that may facilitate WLC and lead to reduced well-being. For example, while reducing workload is not an easily accomplished task for most organisations, by improving task processes and supporting employees' development, efficiencies could be gained, while reducing negative outcomes. For example, Bubb and Earley (2004) suggest that an audit, individual or collective, about the use of employees' time, if supported by management through offering opportunities for discussion and change, can lead to efficiency gains and reduced workload.

Additionally, while this study demonstrated the positive effect of engagement on well-being and highlighted the importance of fostering employee engagement, the question is

how to do so without potentially contributing to such side effects as WLC. Employers should pay attention to highly engaged employees and those that work overtime, who may find it more difficult to psychologically detach from work, thus hindering their recovery and potentially their future performance or even well-being. Providing employees with tools on how to separate their work from other spheres of their lives, how to disengage and relax is important in interrupting the energy depletion that may have occurred during work. Perhaps, not allowing or limiting access to work from home may aid this recovery. To what degree it is possible, however, may be very job and organisation specific. Nevertheless, it may indicate to employees that the organisation cares about and values their private life and in doing so may also enhance employees' organisational identification (Dutton, Dukerich, & Harquail, 1994). This is a timely issue that affects many employers. Technology has enabled the interconnectedness of work and home, which contributes to the blurring of the boundaries between these two domains. It might be helpful to limit the work-related use of technology, such as lap-top devices or mobile phones that connect to work, after business hours, unless it is necessary (Park, Fritz, & Jex, 2011). Furthermore, management should assure employees that they are not expected to solve work-issues after work and that work, in most cases, can wait until the next day. Organisational support for effective management of overtime hours may improve employees' balance between work and other spheres of their life and aid their recovery from work. Employers could also raise awareness of the negative consequences of employees not detaching themselves from work, and support initiatives that improve work-life balance and enhance well-being. A reasonable level of psychological detachment from work could go a long way towards maintaining a healthy and balanced life.

In conclusion, this study showed that by only assessing direct relationships between antecedents and outcomes, we may draw incomplete conclusions. In the case of such a study as this, we could have assumed that engagement and overtime hours do not have a potential to lead to WLC or that external pressures and drive do not impact upon well-being. While the analysis of the direct and indirect relationships in this study further strengthened and re-established existing relationships with certain job demands and WLC and well-being, it has also offered a novel and important contribution in the establishment of a dual effect of engagement, involving enrichment as well as a potential depletion element. One of the findings in the present research, namely that employee engagement may have some undesirable consequences in some cases, does not attempt to question the highly motivational benefits of employee engagement, which were further strengthened by engagement's positive

influence on well-being, supported in this study. Nevertheless, the finding highlights the need to manage and support employee psychological detachment from work when not at work, to ensure that employee engagement does not contribute to work-life conflict but allows, or even supports, adequate recovery from work related issues. In this way everyone is a winner: employees have the opportunity to relax and enjoy other things in life, leading to a potentially healthier lifestyle, while employers get the most out of their engaged workers.

8 References

- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*(2), 278-308. doi: 10.1037/1076-8998.5.2.278
- Aziz, S., Uhrich, B., Wuensch, K. L., & Swords, B. (2013). The Workaholism Analysis Questionnaire: Emphasizing work-life imbalance and addiction in the measurement of workaholism. *Journal of Behavioral and Applied Management, 14*(2), 71-86.
- Bacharach, S. B., Bamberger, P., & Conley, S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior, 12*(1), 39-53. doi: 10.1002/job.4030120104
- Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands – resources model. *European Journal of Work and Organizational Psychology, 12*(4), 393-417. doi: 10.1080/13594320344000165
- Bakker, A. B., Albrecht, S. L., & Leiter, M. P. (2011). Key questions regarding work engagement. *European Journal of Work and Organizational Psychology, 20*(1), 4-28. doi: 10.1080/1359432X.2010.485352
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model : State of the art. *Journal of Managerial Psychology, 22*(3), 309-328. doi: 10.1108/02683940710733115
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology, 10*(2), 170-180.
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274-284.
- Bakker, A. B., & Schaufeli, W. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior, 25*(3), 293-315. doi: 10.1002/job.248
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

- Bech, P. (1999). Health-related quality of life measurements in the assessment of pain clinic results. *Acta Anaesthesiologica Scandinavica*, 43(9), 893-893. doi: 10.1034/j.1399-6576.1999.430906.x
- Beckers, D. G. J., van der Linden, D., Smulders, P. G. W., Kompier, M. A. J., van Veldhoven, M., & van Yperen, N. W. (2004). Working overtime hours: Relations with fatigue, work motivation, and the quality of work. *Journal of Occupational and Environmental Medicine*, 46(12), 1282-1289. doi: 10.1097/01.jom.0000147210.95602.50
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological bulletin*, 107(2), 238-246.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Bollen, K. A. (1998). *Structural equation models*: Wiley Online Library.
- Bowerman, B. L., & O'Connell, R. T. (1990). *Linear statistical models: An applied approach*: PWS-Kent Publishing Company.
- Brannen, J., Lewis, S., & Nilsen, A. (2002). *Young Europeans, work and family*: Routledge.
- Britt, T. W., Castro, C. A., & Adler, A. B. (2005). Self-engagement, stressors, and health: A longitudinal study. *Personality and Social Psychology Bulletin*, 31(11), 1475-1486. doi: 10.1177/0146167205276525
- Bryman, A. (2012). *Social research methods*. Oxford: Oxford University Press.
- Bubb, S., & Earley, P. (2004). *Managing teacher workload: Work-life balance and wellbeing*. London: Sage.
- Buelens, M., & Poelmans, S. A. Y. (2004). Enriching the Spence and Robbins' typology of workaholism: Demographic, motivational and organizational correlates. *Journal of Organizational Change Management*, 17(5), 440-458. doi: 10.1108/09534810410554470
- Burchell, B., Ladipo, D., & Wilkinson, F. (2005). *Job insecurity and work intensification*. London: Routledge.
- Burke, R. J. (2000). Workaholism in organizations: Psychological and physical well-being consequences. *Stress Medicine*, 16(1), 11-16. doi: 10.1002/(SICI)1099-1700(200001)16:1<11::AID-SMI825>3.0.CO;2-U

- Burke, R. J., & Fiksenbaum, L. (2009). Work motivations, work outcomes, and health: Passion versus addiction. *Journal of Business Ethics*, 84(2), 257-263.
- Burke, R. J., Richardsen, A. M., & Mortinussen, M. (2004). Workaholism among Norwegian managers. *Journal of Organizational Change Management*, 17(5), 459-470. doi: 10.1108/09534810410554489
- Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior*, 56(2), 249-249. doi: 10.1006/jvbe.1999.1713
- Clark, S. C. (2000). Work/Family Border Theory: A new theory of work/family balance. *Human Relations*, 53(6), 747-770.
- Cook, R. D., & Weisberg, S. (1982). *Residuals and influence in regression*. New York: Chapman and Hall.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834-848. doi: 10.1037/a0019364
- Csikszentmihalyi, M. (1991). *Flow: the psychology of optimal experience*. New York: Harper Perennial.
- Demerouti, E., Bakker, A. B., de Jonge, J., Janssen, P. P. M., & Schaufeli, W. B. (2001). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work, Environment & Health*, 27(4), 279-286. doi: 10.5271/sjweh.615
- Dougherty, T. W., & Pritchard, R. D. (1985). The measurement of role variables: Exploratory examination of a new approach. *Organizational Behavior and Human Decision Processes*, 35(2), 141-155. doi: 10.1016/0749-5978(85)90032-9
- Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational images and member identification. *Administrative Science Quarterly*, 39(2), 239-263. doi: 10.2307/2393235
- Etzion, D., Eden, D., & Lapidot, Y. (1998). Relief from job stressors and burnout: Reserve service as a respite. *Journal of Applied Psychology*, 83(4), 577-585. doi: 10.1037/0021-9010.83.4.577

- Faugier, J., & Sargeant, M. (1997). Sampling hard to reach populations. *Journal of Advanced Nursing*, 26(4), 790-797. doi: 10.1046/j.1365-2648.1997.00371.x
- Feldman, D. C. (2002). Managers' propensity to work longer hours: A multilevel analysis. *Human Resource Management Review*, 12(3), 339-357. doi: [http://dx.doi.org/10.1016/S1053-4822\(02\)00064-5](http://dx.doi.org/10.1016/S1053-4822(02)00064-5)
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.): Sage Publications Ltd.
- Fritz, C., & Sonnentag, S. (2005). Recovery, health, and job performance: Effects of weekend experiences. *Journal of Occupational Health Psychology*, 10(3), 187.
- Frone, M. R. (2000). Work-family conflict and employee psychiatric disorders: The national comorbidity survey. *Journal of Applied Psychology*, 85(6), 888-895. doi: 10.1037/0021-9010.85.6.888
- Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology*, 77(1), 65-75.
- Frone, M. R., Yardley, J. K., & Markel, K. S. (1997). Developing and testing an integrative model of the work-family interface. *Journal of Vocational Behavior*, 50(2), 145-167.
- Fry, L. W., & Cohen, M. P. (2009). Spiritual leadership as a paradigm for organizational transformation and recovery from extended work hours cultures. *Journal of Business Ethics*, 84, 265-278. doi: 10.2307/40294790
- Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085-1122. doi: 10.1177/0149206313475815
- Geurts, S. A., & Demerouti, E. (2003). Work/non-work interface: A review of theories and findings. *The Handbook of Work and Health Psychology*, 2, 279-312.
- Geurts, S. A. E., Kompier, M. A. J., Roxburgh, S., & Houtman, I. L. D. (2003). Does work-home interference mediate the relationship between workload and well-being? *Journal of Vocational Behavior*, 63(3), 532-559. doi: 10.1016/S0001-8791(02)00025-8
- Grant-Vallone, E. J., & Donaldson, S. I. (2001). Consequences of work-family conflict on employee well-being over time. *Work & Stress*, 15(3), 214-226.

- Grawitch, M. J., Gottschalk, M., & Munz, D. C. (2006). The path to a healthy workplace: A critical review linking healthy workplace practices, employee well-being, and organizational improvements. *Consulting Psychology Journal*, 58(3), 129-147. doi: 10.1037/1065-9293.58.3.129
- Greenblatt, E. D. Y. (2002). Work/life balance: Wisdom or whining. *Organizational Dynamics*, 31(2), 177-193. doi: 10.1016/S0090-2616(02)00100-6
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *The Academy of Management Review*, 10(1), 76-88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *The Academy of Management Review*, 31(1), 72-92. doi: 10.2307/20159186
- Hakanen, J. J., Bakker, A. B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences*, 113(6), 479-487.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43(6), 495-513. doi: 10.1016/j.jsp.2005.11.001
- Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management*, 30(6), 859-879. doi: 10.1016/j.jm.2004.06.004
- Halbesleben, J. R. B., Harvey, J., & Bolino, M. C. (2009). Too engaged? A conservation of resources view of the relationship between work engagement and work interference with family. *Journal of Applied Psychology*, 94(6), 1452-1465. doi: 10.1037/a0017595
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408-420.
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis : A Regression-Based Approach*. New York, NY: The Guilford Press.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513.

- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307-324.
- Hu, L.-t., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, 3(4), 424.
- Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, 38(1), 21-37.
- Ilies, R., Schwind, K. M., Wagner, D. T., Johnson, M. D., DeRue, D. S., & Ilgen, D. R. (2007). When can employees have a family life? The effects of daily workload and affect on work-family conflict and social behaviors at home. *Journal of Applied Psychology*, 92(5), 1368-1379.
- Janssen, P. P., Peeters, M. C., Jonge, J. d., Houkes, I., & Tummers, G. E. (2004). Specific relationships between job demands, job resources and psychological outcomes and the mediating role of negative work-home interference. *Journal of Vocational Behavior*, 65(3), 411-429.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36. doi: 10.1007/BF02291575
- Karasek, R. A., Jr. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), 285-308. doi: 10.2307/2392498
- Kelly, E. L., Moen, P., & Tranby, E. (2011). Changing workplaces to reduce work-family conflict schedule control in a white-collar organization. *American Sociological Review*, 76(2), 265-290.
- Kenny, D. (2014). *Measuring model fit*. Retrieved from <http://davidakenny.net/cm/fit.htm>
- Keynes, J. M. (1933). Economic possibilities for our grandchildren (1930). *Essays in persuasion*, 358-373.
- Killingsworth, M. R. (1983). *Labor supply*. Cambridge: Cambridge University Press.
- Kinnunen, U., Feldt, T., Geurts, S., & Pulkkinen, L. (2006). Types of work-family interface: Well-being correlates of negative and positive spillover between work and family. *Scandinavian Journal of Psychology*, 47(2), 149-162.

- Kinnunen, U., Feldt, T., Siltaloppi, M., & Sonnentag, S. (2011). Job demands–resources model in the context of recovery: Testing recovery experiences as mediators. *European Journal of Work and Organizational Psychology*, 20(6), 805-832.
- Levin, D. M. (1988). *The opening of vision: Nihilism and the postmodern situation*. New York: Routledge.
- Lewis, S., & Smithson, J. (2006). Final report of the Transitions Project for the EU framework 5 funded study “Gender, parenthood and the changing European workplace”. *Manchester: RIHSC, Manchester Metropolitan University*.
- Limpanitgul, T., & Robson, M. (2009). Methodological considerations in a quantitative study examining the relationship between job attitudes and citizenship behaviours. *18th EDAMBA Summer Academy, Soreze, France*.
- Lingard, H., & Francis, V. (2005). Does work–family conflict mediate the relationship between job schedule demands and burnout in male construction professionals and managers? *Construction Management and Economics*, 23(7), 733-745.
- Little, R. J. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83(404), 1198-1202.
- Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3-30.
- Macky, K., & Boxall, P. (2008). High-involvement work processes, work intensification and employee well-being: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources*, 46(1), 38-55. doi: 10.1177/1038411107086542.
- Major, V. S., Klein, K. J., & Ehrhart, M. G. (2002). Work time, work interference with family, and psychological distress. *Journal of Applied Psychology*, 87(3), 427-436. doi: 10.1037/0021-9010.87.3.427
- Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, 921-936.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.

- Mauno, S., Kinnunen, U., & Ruokolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behavior*, 70(1), 149-171. doi: 10.1016/j.jvb.2006.09.002
- McMillan, L. H., Brady, E. C., O'Driscoll, M. P., & Marsh, N. V. (2002). A multifaceted validation study of Spence and Robbins' (1992) Workaholism Battery. *Journal of Occupational & Organizational Psychology*, 75(3), 357-368.
- McMillan, L. H., & O'Driscoll, M. P. (2004). Workaholism and health: Implications for organizations. *Journal of Organizational Change Management*, 17(5), 509-519. doi: 10.1108/09534810410554515
- Meier, S., & Stutzer, A. (2008). Is volunteering rewarding in itself? *Economica*, 75(297), 39-59.
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. D. Drenth & H. Thierry (Eds.), *Handbook of work and organizational psychology, Vol. 2: Work psychology* (pp. 5-33). Hove, England: Psychology Press.
- Melamed, S., Shirom, A., Toker, S., Berliner, S., & Shapira, I. (2006). Burnout and risk of cardiovascular disease: Evidence, possible causal paths, and promising research directions. *Psychological Bulletin*, 132(3), 327-353.
- Montgomery, A., Peeters, M., Schaufeli, W., & Ouden, M. D. (2003). Work-home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress, and Coping*, 16(2), 195-211.
- Ngah, N., Ahmad, A., & Baba, M. (2009). The mediating effect of work-family conflict on the relationship between locus of control and job satisfaction. *Journal of Social Sciences*, 5(4), 348-354. doi: 10.3844/jssp.2009.348.354
- O'Driscoll, M. P., Ilgen, D. R., & Hildreth, K. (1992). Time devoted to job and off-job activities, interrole conflict, and affective experiences. *Journal of Applied Psychology*, 77(3), 272-279.
- Oates, W. E. (1968). On being a "Workaholic" - A serious jest. *Pastoral Psychology*, 19(8), 16-20. doi: 10.1007/BF01785472
- Park, Y., Fritz, C., & Jex, S. M. (2011). Relationships between work-home segmentation and psychological detachment from work: The role of communication technology use at

- home. *Journal of Occupational Health Psychology*, 16(4), 457-467. doi: 10.1037/a0023594
- Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach*. Hillsdale, N.J: Lawrence Erlbaum Associates.
- Perlow, L. A. (1995). Putting the work back into work/family. *Group & Organization Management*, 20(2), 227-239.
- Porter, G. (1996). Organizational impact of workaholism: Suggestions for researching the negative outcomes of excessive work. *Journal of Occupational Health Psychology*, 1(1), 70-84. doi: 10.1037/1076-8998.1.1.70
- Raediker, B., Janßen, D., Schomann, C., & Nachreiner, F. (2006). Extended working hours and health. *Chronobiology International*, 23(6), 1305-1316.
- Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A tale of three perspectives: Examining post hoc statistical techniques for detection and correction of common method variance. *Organizational Research Methods*, 12, 762-800.
- Richardson, K. M., & Thompson, C. A. (2012). High tech tethers and work-family conflict: A conservation of resources approach. *Engineering Management Research*, 1(1), 29-43.
- Roberts, K. (2007). Work-life balance—the sources of the contemporary problem and the probable outcomes: A review and interpretation of the evidence. *Employee Relations*, 29(4), 334-351.
- Robinson, B. E. (2001). Workaholism and family functioning: A profile of familial relationships, psychological outcomes, and research considerations. *Contemporary Family Therapy*, 23(1), 123-135. doi: 10.1023/A:1007880301342
- Rothbard, N., Galinsky, A., & Medvec, V. (2000). *Frustration and satisfaction at work: Emotion and engagement in multiple tasks*. Paper presented at the National Meeting of the Academy of Management, Toronto.
- Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family roles. *Administrative Science Quarterly*, 46(4), 655-684.
- Rothmann, S. (2008). Job satisfaction, occupational stress, burnout and work engagement as components of work-related wellbeing: Empirical research. *SA Journal of Industrial Psychology*, 34(3), 11-16.

- Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, 5(6), 359-371.
- Russo, J. A., & Waters, L. E. (2006). Workaholic worker type differences in work-family conflict. *Career Development International*, 11(5), 418-439. doi: 10.1108/13620430610683052
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619. doi: 10.1108/02683940610690169
- Sauter, S. L., Lim, S.-Y., & Murphy, L. R. (1996). Organizational health: A new paradigm for occupational stress research at NIOSH. *Japanese Journal of Occupational Mental Health*, 4(4), 248-254.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293-315. doi: 10.1002/job.248
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students a cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481.
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job Demands-resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health* (pp. 43–68). Amsterdam: Springer.
- Schaufeli, W. B., Taris, T. W., & Bakker, A. B. (2006). Dr Jekyll or Mr Hyde? On the differences between work engagement and workaholism. In R. J. Burke (Ed.), *Research companion to working time and work addiction* (pp. 193-217). Cheltenham, UK: Edward Elgar.
- Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and work engagement: Three of a kind or three different kinds of employee well-being? *Applied Psychology*, 57(2), 173-203. doi: 10.1111/j.1464-0597.2007.00285.x
- Scott, K. S., Moore, K. S., & Miceli, M. P. (1997). An exploration of the meaning and consequences of workaholism. *Human Relations*, 50(3), 287-314. doi: 10.1023/A:1016986307298

- Shmotkin, D. (1990). Subjective well-being as a function of age and gender: A multivariate look for differentiated trends. *Social Indicators Research*, 23(3), 201-230.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1(1), 27-41. doi: 10.1037/1076-8998.1.1.27
- Simpson, R. (1998). Presenteeism, power and organizational change: Long hours as a career barrier and the impact on the working lives of women managers. *British Journal of Management*, 9(s1), 37-37. doi: 10.1111/1467-8551.9.s1.5
- Skinner, N., & Pocock, B. (2008). Work-life conflict: Is work time or work overload more important? *Asia Pacific*, 46(3), 303-315. doi: 10.1177/1038411108095761.
- Snir, R., & Harpaz, I. (2012). Beyond workaholism: Towards a general model of heavy work investment. *Human Resource Management Review*, 22(3), 232-243. doi: 10.1016/j.hrmr.2011.11.011
- Sonnentag, S., & Bayer, U.-V. (2005). Switching off mentally: Predictors and consequences of psychological detachment from work during off-job time. *Journal of Occupational Health Psychology*, 10(4), 393-414.
- Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology*, 12(3), 204-221. doi: 10.1037/1076-8998.12.3.204
- Sonnentag, S., Mojza, E. J., Binnewies, C., & Scholl, A. (2008). Being engaged at work and detached at home: A week-level study on work engagement, psychological detachment, and affect. *Work and Stress*, 22(3), 257-276. doi: 10.1080/02678370802379440
- Spector, P. E. (1987). Method variance as an artifact in self-reported affect and perceptions at work: myth or significant problem? *Journal of Applied Psychology*, 72(3), 438-443.
- Spence, J. T., & Robbins, A. S. (1992). Workaholism: Definition, measurement, and preliminary results. *Journal of Personality Assessment*, 58(1), 160-178. doi: 10.1207/s15327752jpa5801_15
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25(2), 173-180.

- The Institute of Digital Research and Education. (n.d.). [Untitled image of a simple mediation model]. Retrieved from http://www.ats.ucla.edu/stat/sas/faq/ml_mediation2.htm.
- Thompson, C. A., Beauvais, L. L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. *Journal of Vocational Behavior*, 54(3), 392-392. doi: 10.1006/jvbe.1998.1681
- Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands-Resources model. *European Journal of Work and Organizational Psychology*, 19(6), 735-759. doi: 10.1080/13594320903223839
- Van der Hulst, M. (2003). Long workhours and health. *Scandinavian Journal of Work, Environment & Health*, 171-188.
- Wallace, J. E. (1997). It's about time: A study of hours worked and work spillover among law firm lawyers. *Journal of Vocational Behavior*, 50(2), 227-248.
- Ward, S., & Steptoe-Warren, G. (2014). A conversation of resources approach to Blackberry use, work-family conflict and well-being: Job control and psychological detachment from work as potential mediators. *Engineering Management Research*, 3(1), 8-23.
- Weston, R., & Gore, P. A. (2006). A brief guide to structural equation modeling. *The Counseling Psychologist*, 34(5), 719-751. doi: 10.1177/0011000006286345
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141.

9 Appendixes

9.1 Appendix 1 - Measurement Scales

Drive/Workaholism

Revised WORKBAT by L. H.. McMillan et al. (2002)

1. I seem to have an inner compulsion to work hard.
2. It's important to me to work hard, even *when* I don't enjoy what I'm doing.
3. I often feel there is something inside me that drives me to work hard.
4. I feel obliged to work hard even when it's not enjoyable.
5. I often find myself thinking about work, even when I want to get away from it for a while.
6. Between my job and other activities I'm involved in I don't have much free time.
7. I feel guilty when I take time off work.

Work-life conflict

WAQ by Aziz et al. (2013)

1. My work often seems to interfere with my personal life.
2. I often miss out on important personal activities because of work demands.
3. I often put issues in my personal life “on hold” because of work demands.
4. I experience conflict with my significant other or with close friends.
5. I find myself unable to enjoy other activities because of my thoughts of work.
6. I find it difficult to schedule vacation time for myself.
7. I constantly feel too tired after work to engage in non-work activities.

External work pressures

Work-Family Culture by Thompson et al. (1999)

1. To get ahead at this organization, employees are expected to work more than their contractual hours require, whether at the workplace or at home. (R)
2. Employees are often expected to take work home at night and/or on weekends. (R)

3. Employees are regularly expected to put their jobs before their families. (R)
4. To be viewed favourably by top management, employees in this organization must constantly put their jobs ahead of their families or personal lives. (R)

Additional items:

1. In order to improve career advancement prospects in this organisation, employees are expected to be visible, even though not productive, longer than their contractual hours.
2. In order to improve financial rewards/bonus prospects in this organisation, employees are expected to be visible, even though not productive, longer than their contractual hours.
3. In order to improve job security prospects in this organisation, employees are expected to be visible, even though not productive, longer than their contractual hours.

Workload

Work overload by 1 item of Role Overload measure by Dougherty and Pritchard (1985), modified by Skinner and Pocock (2008)

1. “It often seems like you have too much work for one person to do.”

Overtime hours

Overtime hours was assessed the following question:

1. How many hours do you work over and above your contractual hours/week?

Psychological detachment

Psychological detachment was measured by the relevant factor of the Recovery Experience Measure developed by Sonnentag and Fritz (2007)

When I am not at work...

1. I forget about work.
2. I don't think about work at all.
3. I distance myself from my work when not at work.
4. I get a break from the demands of work.

Well-being

Health and Well-being being measured by Idler and Benyamini (1997)

1. How would you rate your health at the present time?

(Scale - excellent; good; fair; poor; bad)

Well-being WHO-5 by Bech (1999)

The five statements below refer to how you have been feeling in the past month:

1. I have felt cheerful and in good spirits.
2. I have felt calm and relaxed.
3. I have felt active and vigorous.
4. I woke up feeling fresh and rested.
5. My daily life has been filled with things that interest me.

Engagement

Job engagement by Saks (2006)

1. I really “throw” myself into my job.
2. Sometimes I am so into my job that I lose track of time.
3. This job is all consuming; I am totally into it.
4. My mind often wanders and I think of other things when doing my job (R).
5. I am highly engaged in this job.

9.2 Appendix 2

Exploratory Factor Analysis for the Outcome Variable of Work-life Conflict

Pattern Matrix ^a						
	Factor					
	1	2	3	4	5	6
DRV01			.905			
DRV02			.665			
DRV03			.856			
DRV04			.674			
DRV05					-.543	
DRV06	.645					
DRV07	.462					
WLC01	.787					
WLC02	.854					
WLC03	.748					
WLC04	.706					
WLC05	.485				-.336	
WLC06	.591					
WLC07	.566					
ENG01		.655				
ENG02		.725				
ENG03		.847				
ENG04R		-.474				.371
ENG05		.711				
DTCH01					.750	
DTCH02					.725	
DTCH03					.747	
DTCH04					.649	.360
WLCUL1				.489		
WLCUL2				.586		
WLCUL3				.758		
WLCUL4				.875		
WLCUL5				.839		
WLCUL6				.817		

Notes. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 11 iterations. DRV = Drive, WLC = Work-life Conflict, ENG = Engagement, DTCH = Psychological Detachment, WLCUL = External Pressures

9.3 Appendix 3

Exploratory Factor Analysis for the Outcome Variable of Well-being

Pattern Matrix^a

	Factor					
	1	2	3	4	5	6
DRV01				.938		
DRV02				.653		
DRV03				.882		
DRV04				.649		
DRV05					-.470	
DRV06	.322					
DRV07	.309					
ENG01		.604				
ENG02		.779				
ENG03		.863				
ENG04R		-.396				.527
ENG05		.644				
DTCH01					.807	
DTCH02					.719	
DTCH03					.723	
DTCH04					.668	
WLCUL1			.516			
WLCUL2			.661			
WLCUL3			.816			
WLCUL4			.812			
WLCUL5			.834			
WLCUL6			.840			
WB01	-.677					
WB02	-.753					
WB03	-.861					
WB04	-.812					
WB05	-.741					
WB06	-.693					

Note. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 8 iterations.

DRV = Drive, ENG = Engagement, DTCH = Psychological Detachment, WLCUL = External Pressures, WB = Well-being

9.4 Appendix 4

Exploratory Factor Analysis with Top Loading Items Only

Pattern Matrix ^a					
	Factor				
	1	2	3	4	5
DRV01				.913	
DRV02				.655	
DRV03				.872	
DRV04				.662	
ENG01		.634			
ENG02		.791			
ENG03		.866			
ENG05		.646			
DTCH01					.797
DTCH02					.735
DTCH03					.683
DTCH04					.617
WLCUL1			.552		
WLCUL2			.673		
WLCUL3			.794		
WLCUL4			.831		
WLCUL5			.811		
WLCUL6			.841		
WB01	.667				
WB02	.746				
WB03	.849				
WB04	.818				
WB05	.727				
WB06	.682				

Notes. Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 9 iterations.
 DRV = Drive, ENG = Engagement, DTCH = Psychological Detachment,
 WLCUL = External Pressures, WB = Well-being